MC0141

Accommodation for people with mental illness

Health Building Note 35

Part 1 – The acute unit

NHS Estates
An Executive Agency of the Department of Health

Accommodation for people with mental illness

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London: HMSO

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An Executive Agency of the Department of Health

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About this series

The Health Building Note (HBN) series is intended to give advice on the briefing and design implications of Departmental policy.

These Notes are prepared in consultation with representatives of the National Health Service and appropriate professional bodies. Health Building Notes are aimed at multidisciplinary teams engaged in:

- designing new buildings;
- adapting or extending existing buildings.

Throughout the series, particular attention is paid to the relationship between the design of a given department and its subsequent management. Since this equation will have important implications for capital and running costs, alternative solutions are sometimes proposed. The intention is to give the reader informed guidance on which to base design decisions.

Executive summary

This Health Building Note (HBN) – HBN 35 – 'Accommodation for people with mental illness, Part 1: The acute unit' revises and replaces HBN 35 – 'Accommodation for people with acute mental illness' issued in 1988.

Throughout the document recognition is given to the importance of decisions being made locally, as close to the patient as possible. The involvement of service users and their representatives in the planning and design process is encouraged.

Emphasis is given to the need for a comprehensive mental health service providing a full spectrum of care for the mentally ill, and for clear local policies on the role and functions of an acute unit within that service. The design of acute facilities will be dependent upon the characteristics of the expected client group identified by the assessment of local needs.

This HBN acts as a prompt to many of the issues which need to be addressed. Project teams must expect to modify the guidance in the light of local circumstances.

Within this document there is discussion of some of the current trends affecting health buildings in general and mental health service accommodation in particular. This HBN (Part 1) concentrates on the facilities within the acute unit and emphasises:

- the need for space;
- the provision of single rooms;
- access to outside areas and exercise facilities;
- the flexible use of space;
- the provision of separate facilities for women;
- access for disabled people.

The importance of achieving an appropriate balance between security and a therapeutic environment is also stressed.

The accommodation described in this document includes:

- adult in-patient wards (costed example 15 beds);
- an intensive care ward – lockable (costed examples five and 10 beds);
- shared activity areas;
- an admissions suite;
- an ECT suite;
- an out-patients department;
- a day hospital for elderly people with mental illness (costed examples 10 and 20 places);
- an in-patient ward for elderly people with mental illness (costed example 20 beds).

Schedules of accommodation are included with approximate areas to enable designers to make an assessment of the sizes involved, but it is emphasised that the areas published do not represent recommended sizes, nor are they to be regarded in any way as specific individual entitlements.

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Contents

About this series

Executive summary

1. Scope of Health Building Note 35 *page 3*
1.7 Introduction
1.9 Exclusions
1.10 Capital Investment Manual
1.11 Cost allowances
1.12 Equipment
1.14 Works Guidance Index

2. General service considerations *page 7*
2.2 Background
2.6 Current trends
2.25 Patient categories
2.26 Operational policies
2.43 Information management and technology

3. General functional and design requirements *page 12*
3.1 Environment and design
3.5 General design considerations
3.20 User requirements
3.26 Location
3.35 Functional considerations
3.41 Disabled people
3.47 Mother and baby provision
3.52 Admissions
3.54 Intensive care
3.56 Violence
3.60 Security
3.66 Car parking
3.67 Art in health buildings
3.74 Courtyards
3.78 Natural and artificial lighting
3.83 Telephones
3.85 Internal rooms
3.89 Ventilation
3.91 Noise and sound attenuation
3.95 Finishes
3.97 Colour
3.98 Floors
3.100 Doors and frames
3.101 Windows
3.112 Maintenance and cleaning
3.115 Staff change
3.120 Domestic services
3.121 Education and training

4. Adults with acute mental illness – specific functional and design requirements *page 23*
4.1 Entrance and reception area
4.10 Waiting areas
4.11 Wards
4.100 Intensive care ward
4.116 Admission suite (optional)
4.121 Shared activity areas
4.142 Administration
4.156 Electro-convulsive therapy (ECT) suite
4.168 Out-patients

5. Elderly people with acute mental illness – specific functional and design requirements *page 36*
5.1 Introduction
5.3 General considerations
5.10 Description of accommodation
5.11 Day hospital
5.42 In-patient ward
5.64 Out-patients suite
5.65 Administration suite

6. Other general functional and design requirements *page 41*
6.1 Introduction
6.2 Statutory and other requirements, including Crown immunities
6.4 Building components
6.5 Upgrading or adaptations of existing buildings
6.10 Smoking

7. Engineering services *page 43*
7.1 Activity data
7.2 Safety
7.3 Fire safety
7.4 Noise
7.6 Space for plant and services
7.13 Engineering commissioning
7.14 Maximum demands

Mechanical services

7.15 Heating
7.24 Ventilation (general)
7.31 Ventilation controls
7.32 Ventilation of seclusion rooms
7.34 Ventilation (substances hazardous to health)
7.35 Ventilation of day rooms/smoking rooms
7.36 Hot and cold water services
7.42 Piped medical gases and vacuum
7.43 Bedhead services

Electrical services

7.44 Electrical installation
7.47 Electrical interference
7.51 Lighting
7.61 Lighting – treatment rooms
7.62 Controlled Drugs cupboard
7.65 Socket-outlets and power connections
7.76 Energy electrical supplies
7.77 Main entrance security systems
7.78 Personal alarm transmitters
7.79 Security alarm
7.80 Staff location system
7.81 Emergency call system (patient/staff and staff/staff)
7.86 Telephones
7.92 Data links
7.93 Clocks
7.94 Seclusion room intercom
7.95 Music and television
7.96 Lightning protection

Internal drainage

7.97 General
7.98 Design parameters

8. Cost information *page 51*
8.1 Introduction
8.2 Departmental Cost Allowance Guides
8.6 On-costs
8.10 Locational factors
8.11 Functional units
8.12 Essential complementary accommodation (ECA)
8.13 Optional accommodation and services (OAS)
8.20 Circulation
8.22 Communications
8.23 Land costs
8.24 Engineering services
8.25 Schedules of accommodation

9. Activity data *page 64*
9.1 Introduction
9.7 Activity data applicable to this Note
9.10 Lists of Room Data Sheets

References *page 71*

Other publications in this series *page 77*

About NHS Estates *page 78*

1.0 Scope of Health Building Note 35

1.1 This Building Note is obviously ''building'' orientated and general in nature. **This guidance is not mandatory and elements may not be appropriate to particular schemes depending on local circumstances. This Building Note and the other documents to which it refers for various general guidance need to be considered and used in accordance with the local requirements and needs of the client group.**

1.2 It is crucially important that mental health services are orientated and specific to particular local needs. The development or revision of a mental health services strategy which follows a thorough assessment of local need includes all the components required to provide a comprehensive service.

1.3 Where the need for an acute unit is identified, its role needs to be clearly defined and due consideration taken of local factors such as the age profile; ethnic mix; and trends in psychiatric morbidity. The range and nature of the facilities provided, the design of the unit and its operational policies will depend on the types of client the unit will manage and reflect the views of the main purchasers, multi-agency providers, users and user groups as well as local clinical practice.

1.4 These factors and opinions regarding the appropriate size, location and design of acute units are likely to result in considerable local variation. This is welcomed and encouraged.

1.5 The Royal College of Psychiatrists, in association with other organisations, has set up a working party to examine the siting, structure, staffing and security in mental health units.

1.6 It is expected that the working party will report its findings in 1997 and it is intended that this Building Note will be reviewed in the light of the findings and revised as appropriate.

Introduction

1.7 Health Building Note 35 (Part 1) is a guide to the accommodation requirements for acute mental health services as part of a comprehensive, based mental health service. It concentrates on the acute units. A future part of this Health Building Note is planned covering the requirements for supportive mental health facilities and accommodation. 'Service Settings for the Delivery of Mental Health Care and Treatment' are described in 'The Health of the Nation Key Area Handbook Mental Illness, 2nd Edition', including:

- **user's homes** – suitable for most patients during periods of crisis; may be unsuitable for those at significant risk to themselves or others, and people living in markedly adverse circumstances;
- **day hospitals** – an alternative to hospitalisation for even quite psychotic patients; suitable settings for group therapies and intensive support for out-patients;
- **crisis accommodation** – siting includes settings such as mental health centres, hostels or ordinary housing and is an extremely popular concept with users;
- **acute units** – where patients are disturbed or suicidal, the protective environment of hospital accommodation assists in stabilisation, treatment and re-establishment in the community. However, many beds are inappropriately occupied by people with severe – but not acute – mental illness awaiting supported accommodation in the community, leaving a shortage for use by those in an acute phase of mental illness. Options can be developed to location on District General Hospital sites, offering a more user-friendly design (DGH sites *may* have poor access, be extensive and in design more suited to general medicine or surgery). Local acute units exist, for example, at The Grange, Long Benton, Newcastle and are being developed, for example, in East Birmingham;
- **day centres** – providing rehabilitation and continuing support, should be provided in separate locations to day hospital services, but with close links between them, and be integrated with community health services as far as possible;
- **drop-in centres** – allowing social contact to be gradually increased and engagement with services to be commenced;
- **community mental health/resource centres** – providing local team bases, facilities for interviewing

Note. This Building Note follows a widespread usage in describing as "adult" services those services which are not intended either for children or solely for elderly people. It is recognised that the terms "adult" and "elderly" are not a very satisfactory distinction, but this is widely understood and is useful in the context of this Note.

and day care; also clubs, adult education, advocacy and other schemes;

- **unstaffed group homes/flatlets** – an option for some patients who have good relationships with each other is group homes with communal living (for example Housing Association Special Needs Schemes); care managers/keyworkers must monitor the support provided – such as by domiciliary home care workers – on a regular basis;

- **adult placement schemes** – providing alternative care for a small well-selected group of patients, the success of these schemes is dependent on the selection of carers and patients, training and continuing support, particularly in emergencies. When private board and lodging houses are used for accommodation, purchasers must ensure that patients are close to friends, family or their previous residence (eg the hospital where they were living); quality standards must be monitored on an ongoing basis by a key workers/care managers, with reference to the local authority registration/ inspection unit;

- **residential care homes** – small groups of patients will need the support of group homes with staff present in the homes for extended periods of the day or giving 24-hour cover. In the latter case, sleeping-in staff provide the least restrictive, while appropriately supportive, option for a significant number of patients. Some schemes have developed on a core and cluster model with staff from the more highly staffed hostels also supporting those which are more independent. Care homes should be local to friends and families, or to the user's previous residence. Voluntary sector organisations – including Turning Point, Making Space, the Guidepost Trust, Mental After Care Association and the Richmond Fellowship – have particular experience in this area;

- **mental nursing homes** – providing asylum or sanctuary care for extended periods; care should be provided in as domestic a setting as possible (the smaller Registered Mental Nursing Homes may be suitable);

- **24-hour NHS residences** – hospital hostels may be suitable for younger age groups (other NHS accommodation will be needed for continuing health care for the elderly). 24-hour residences can be more cost effective than long-stay wards and more appropriate than 'revolving' users in and out of acute wards;

- **local secure units** – complementing general psychiatric units and providing short-term care for patients during acutely disturbed episodes. (Failure to provide sufficient spaces in these units leads to blocking and unsuitable – and probably more costly – placements elsewhere.) Purchasers should prioritise the assessment of the need for places in local secure units and ensure that a sufficient number are available;

- **medium secure units** – providing care and treatment in conditions of security for patients who are not such a risk as to require a place in a high security unit. (Failure to assess and provide the number of places required leads to unsuitable placements in the special hospitals, in less secure provision or in prison.) Purchasers have had the formal responsibility placed on the NHS 20 years ago for ensuring that suitable facilities are available for the treatment, care and security needs of their populations;

- **high security units** – purchasers should be involved in the care planning of all their patients in special hospitals, from admission through to discharge – including, in particular, the placement within 6 months of special hospital patients who no longer need high security facilities. They are under a duty to ensure that the Care Programme Approach is implemented on discharge or transfer to more local services. They should also assess patients individually to establish their need for high security care; and

- **independent health care providers** – offering a range of mental health services, including brain injury rehabilitation, secure units for mentally ill offenders, long-term psychiatric services, adolescent psychiatry, behavioural treatment, 24-hour crisis intervention and drug and substance misuse treatment.

In Northern Ireland the Regional Strategy for the HPSS 1992-1997 incorporates Key Area Mental Health Action Plans.

1.8 It was necessary to make some assumptions in this HBN but these assumptions are not intended to dictate in any way the nature or content of service provision in any area. The assumptions made are:

a. the unit will be based on the site of an acute general hospital, or share a site with another establishment, possibly other mental health service or community facilities but also it encourages the consideration of other community sites;

b. in order to match the pattern of the rest of the community mental health services, the unit may be organised on a sector or primary care locality basis with two or three geographical sectors, each relating to a particular ward (with the flexibility to permit the referral of any patient to a particular consultant);

c. separate facilities will be provided elsewhere for patients who are considered to present a significant risk to others;

d. some disturbed behaviour is to be expected so the unit will require a small, more highly staffed intensive care ward. This ward will be regarded as "lockable" rather than "locked";

e. patients requiring assessment in the acute facility, but not needing to be admitted overnight, will attend the relevant ward of the in-patient section;

f. the number of day patients attending on any particular day will not be large enough to affect the space requirements significantly;

g. in-patients needing to attend a day hospital as part of a "step down" discharge plan will attend one sited elsewhere in the community;

h. an ECT suite is required;

j. facilities for the assessment and short term acute care of elderly people with mental illness are needed in proximity to both the acute mental health services unit and the acute general services for the elderly;

k. day hospital facilities are required in association with the in-patient area for elderly people with mental illness;

m. an administrative base may be required in the unit;

n. although an out-patient facility is described in this HBN, out-patient clinics are expected to be held increasingly in a health centre, GP premises or the oupatients of a general hospital.

Exclusions

1.9 This note does not deal with specialist mother and baby units, accommodation for children and adolescents, units for alcohol or drug misuse, accommodation for longer term treatment or continuing support; or medium secure units. Heavy workshops are not included in this HBN but if a local decision is made to provide one, specialist advice should be sought and special consideration given to health and safety issues, including safety switches.

Capital Investment Manual

1.10 The Capital Investment Manual (England and Wales) contains the NHS Executive's procedural framework governing the inception, planning, processing and control of individual health building schemes. There are various mandatory requirements within this overall process but the way these tasks are carried out is mainly for NHS trusts and Health Authorities (HAs) (for directly managed units), as appropriate, to determine. Approval from the NHS Executive for business cases will depend on how they intend to carry out the mandatory tasks. The Manual gives guidance on the technical considerations of the full capital appraisal process and also provides a framework for establishing management arrangements to ensure that the benefits of every investment are identified, realised and evaluated. It emphasises three key points:

a. each individual scheme must be supported by a sound business case. A business case must convincingly demonstrate that the investment is economically sound (through an option appraisal) and financially viable (affordable to the trust and its purchasers);

b. an exploration of private finance alternatives should be viewed as a standard option whenever a capital scheme is being considered. Once the Outline Business Case has been approved, the preferred option should be compared to potential private finance alternatives. Approval to the Full Business Case will not be given unless there is a clear demonstration that private finance alternatives have been adequately tested;

c. the delivery of a major capital project is a difficult and complex task. Nevertheless failure to deliver on time and to cost diverts resources from direct patient care. The establishment of an appropriate project organisation is essential to ensure that projects are delivered within agreed budgets and timescales.

In Northern Ireland only some of the CIM booklets have been issued, under cover of HSS (PDD) 4/95 to date. Others, amended where appropriate, will be issued in due course.

Cost allowances

1.11 The Departmental Cost Allowances associated with this HBN are promulgated in the Quarterly Briefing (issued separately under cover of an Estates Policy Letter) on behalf of the NHS Executive. In Northern Ireland Quarterly Briefing is issued under cover of a Professional Estate Letter.

Equipment

1.12 Equipment is categorised into four groups, as follows:

a. **Group 1:** items (including engineering terminal outlets) supplied and fixed within the terms of the building contract;

b. **Group 2:** items which have space and/or building construction and/or engineering service requirements and are fixed within the terms of the building contract but supplied under arrangements separate from the building contract;

c. **Group 3:** as Group 2, but supplied and fixed (or placed in position) under arrangements separate from the building contract;

d. **Group 4:** items supplied under arrangements separate from the building contract, possibly with storage implications, but otherwise having no effect on space or engineering service requirements.

1.13 Group 1 items are provided for in the Departmental Cost Allowance associated with this Note. The Department of Health Equipment Cost Allowance Guide (ECAG) specifies a sum of money for the functional unit for Groups 2 and 3 but does not cover Group 4.

Works Guidance Index

1.14 This volume indexes under subject references much of the relevant guidance that is current at the time of publication. Specific issues, such as arrangements for dealing with fire, security, energy conservation, etc are also covered by other published guidance which must be taken into account. It is recommended that project teams check the current edition of the Works Guidance Index and investigate the possibility of changes occurring since its publication.

2.0 General service considerations

"Mental health problems account for an enormous burden of unhappiness and anxiety, not just for people who are ill or distressed, but also for those who live with them and care for them. People of all ages and from every social group are affected. Mental illness and distress includes a variety of very different conditions, ranging from anxiety to more serious illness, which require different forms of treatment and support." (Appendix 14, 'Caring for the Future' – The Welsh Office NHS Directorate.)

2.1 Departmental policy driving mental health services is outlined in 'Key Area Handbook – Mental Illness'. **In Northern Ireland the Regional Strategy for the HPSS 1992-1997 incorporates Key Area 2nd edition Mental Health Action Plans.**

Background

2.2 Specialist mental illness services were traditionally based in large mental hospitals, located away from the main centres of population. They provided containment, control and asylum on a long-term basis, often for life. The hospitals usually had very extensive grounds and became self-contained communities. Patients were institutionalised by rigid programme of the institution and were not expected to take any responsibility for themselves.

2.3 As treatment became available for various mental illnesses, it became possible to admit patients for shorter periods and outreach services began to develop from the hospital base, firstly as out-patient clinics in general hospitals, and later other professions provided support or assessment within the community but still as part of a mental illness hospital service.

2.4 It has been recognised for many years that the facilities offered by large mental hospitals are not appropriate for either the acute care or rehabilitation of people with mental illness. A programme for the closure of the large hospitals was begun.

2.5 This programme is multi-faceted but has had three main thrusts:

a. development of community services to reduce the need for hospital admission;

b. provision of supported accommodation, both staffed and unstaffed, within the community to allow people who are not totally capable of living independently to return to and/or remain within the community;

c. move of acute mental illness in-patient services onto general hospital sites, usually taking the form of a psychiatric unit of a district general hospital. The three main reasons for this siting were to:

   (i) help reduce the stigma and embarrassment associated with mental illness by demonstrating its treatment as any other illness;

   (ii) enable easier access to other clinical specialties and easier referral of general hospital patients with mental health problems particularly following recent self harm.

Current trends

2.6 The introduction of the National Health Service and Community Care Act 1990 has encouraged a more enabling approach to health service provision with the separation of the purchaser and provider functions. Health authorities (and GP fundholders) purchase health care on behalf of their local population. The purchasers are responsible for purchasing according to local need rather than a national "norm" for the level of provision. The purchasers therefore need to make an analysis of local health care needs, identify priorities for improvement of services, and purchase the required services through the letting of contracts and monitoring these contracts. **In Northern Ireland the Health and Social Services (Northern Ireland) Order 1991 equates to the NHS – Community Care Act 1990.**

2.7 The analysis of local needs is a crucial element in the drive to achieve a responsive health service as needs will vary according to a wide range of demographic factors, for example "Epidemiological studies at the Institute of Psychiatry and the MRC Social and Community Psychiatry Unit have shown a relatively high incidence of Schizophrenia in the Afro-Caribbean community in London. While the reason for this is not yet clear, the findings have significant implications for planning the provision of NHS care in a way that responds to the needs of the multi-cultural UK society" (Research Developments Relevant to NHS Practice, Public Health and Health Departments Policy – Medical Research Council, May 1995).

2.8 Most purchasers will have strategies for mental health which, while responding to locally assessed need, will include:

- Health of the Nation targets;
- implementation of the Care Programme Approach;
- emphasis on seriously mentally ill people, and
- integration of services.

2.9 In planning future services it is important that project teams consider the possible effects of any current research on Policy. The Department of Health publication – Centrally Commissioned Research Programme under the section headed 'Mental Health Policy', states: "Research in the field of mental health supported by the centrally commissioned research programme reflects strategic policy innovation and change in this field. Health of the Nation targets, community care policies, the strategic shift to the primary sector and initiatives to improve the care of mentally disordered offenders are all policy priorities informed by research in this programme".

2.10 Local services need to be planned in the context of national priorities, 'Priorities and Planning Guidance for the NHS: 1996/97' gives as two of the medium term priorities:

> "Work towards the development of a primary care-led NHS in which decisions about purchasing and provision of health care are taken as close to patients as possible.
>
> In partnership with local authorities, to purchase and monitor a range of secure, residential, in patient and community services to enable people with mental illness to receive effective care and treatment in the most appropriate setting in accordance with their needs."

2.11 These NHS-wide policies reinforce the trends which are already underway and will have an increasing significance for mental health services.

2.12 The nature of district general hospitals (DGHs) is changing and there is a move towards more community-based provision of acute services. It is now increasingly appropriate to refer to general hospitals rather than district general hospitals and they will be referred as such in this guidance.

2.13 The trend predicted in 'Closer to Home – Healthcare in the 21st Century' NAHAT 1994 is for the nature of acute general hospital care to change from the typical DGH towards some highly specialised units and smaller local hospitals.

2.14 The predicted change of the DGH further challenges the concept of acute mental illness services as an integral part of a District General Hospital service. Mental health services are now generally regarded as community-based services and work closely with the primary care services, with in-patient facilities supporting the rest of the mental health services rather than forming the focus.

2.15 The key element of multi-agency partnership is the use of the Care Programme Approach. 'Caring for People with Severe Mental Illness – Information for Psychiatrists' in describing the Care Programme Approach states "It does mean being sure that the needs for health (both physical and mental) and social care of patients are systematically assessed with particular attention to whether the patient has a severe and enduring mental illness. It also means that one person – a key worker – is the focal point of contact for the patient, carer and GP and is responsible for keeping in touch with the patient. They will also monitor that the agreed programme of care is delivered. An adequate mental health information system will ensure that information concerning the care programme approach is available to those who need it (subject to confidentiality constraints)".

2.16 The Department of Health – Statement of Responsibilities and Accountabilities (May 1995) states: "The core function of NHS Trusts is to deliver services to purchasers' specifications. Trusts are responsible to health authorities and GP Fundholders for managing delivery to"quality and cost targets in contracts".

2.17 The current emphasis in mental health is on comprehensive services for severely mentally ill people.

2.18 "Appropriately targeted care aims to ensure that people with mental illness have their health and social care needs properly assessed, adequately met and regularly reviewed with prompt admission to hospital when this is necessary" (Caring for People with Severe Mental Illness – Information for Psychiatrists 1993).

2.19 Mental health service providers need to agree with the purchasing authorities the level and type of services to be provided.

2.20 It is important that there is clarity regarding the clinical conditions the service is expected to manage so that operational policies can be produced which allow the anticipated needs to be met. The design of effective services and buildings is dependent on clear operational policies.

2.21 The level of understanding required is best achieved by very close collaboration between planners and designers, purchasers and providers. From the national priorities it is clear that the mental health emphasis is on services for severely mentally ill people but locally there needs to be agreement on who is covered, for example the report of a project group chaired by Professor J L Mansell – 'Services for People with Learning Disabilities and Challenging Behaviour or Mental Health needs

(1993)' includes in its description of "good practice", "Local mental health services are readily available to people with learning disabilities who have mental health problems", and "Psychiatric care of people with learning disabilities is an integral part of local mental health services".

2.22 The attitude towards the provision of services for people with personality disorder is more varied. The Report of the Department of Health and Home Office Working Group on Psychopathic Disorder" – (Chairman Dr John Reed CB 1994), states:

> "Most psychiatric units and hospitals provide services for people with personality disorder, including some services for people in the category of psychopathic disorder, though the extent to which they do so is varied".
>
> "Risk assessment in people with psychopathic disorder can be particularly difficult because, in the absence of observable changes other than the potentially dangerous behaviour, much greater reliance has to be placed on what the person chooses to tell others about himself".
>
> ". . . some clinicians prefer to manage them in more general wards or units. We have no wish to discourage this if it is a clinician's preferred approach".

2.23 In the context of accommodation for Acute mental health services this HBN assumes that patients needing the security of a medium secure unit will not be cared for within the facilities described in this document.

2.24 Patients' needs are related to the nature of their attendance at the facility as well as by their clinical condition.

Patient categories

2.25 Patients attending an acute mental services unit can be considered in three main categories:

a. **in-patients** – who stay in the unit overnight. Some in-patients will be detained under the provisions of the Mental Health Act 1983. In Northern Ireland the Mental Health (Northern Ireland) Order 1986 equates to the Mental Health Act 1983;

b. **out-patients** – who attend for consultations, examinations, investigations, injections or other minor procedures and leave as soon as their treatment is finished;

c. **day patients** – who do not require an overnight stay but attend for a half day or longer on a regular basis for a period of time. Elderly mentally ill people may attend a day hospital attached to the in-patient unit for assessment or short-term treatment. Other patients may attend the in-patient facility on a day patient (partial hospitalisation) basis for assessment and short term treatment.

Operational policies

2.26 Operational policies need to cover not only the nature of services to be provided to the expected patient group but also incorporate a range of general services. These policies are usually known as "whole hospital policies". The main elements which have implications for the space requirements or nature of the buildings are:

Materials handling: supply, storage and disposal

2.27 Project teams should give careful consideration to supply, storage and disposal systems. The quantity and distribution of storage space can only be specified in terms of known policies. Space will be required for clinical waste, depending on the policy, it may be necessary to have dedicated secure space for clinical waste wheeled bins or similar.

2.28 Project teams should consider:

a. whole hospital materials handling: supplies, storage and disposal policies. The frequency of deliveries, the amount of storage space required in the unit and the delivery and storage policy of the supplying department are interrelated. The lower the frequency of delivery, the greater the initial outlay on working stocks;

b. the types of items supplied, for example sterile supplies, office supplies, catering supplies and clean laundry;

c. the delivery and collection points;

d. the volume and location of storage spaces (including spaces where items are held awaiting collection for reprocessing or disposal);

e. specialised storage requirements, for example for pharmaceutical supplies (especially Controlled Drugs).

2.29 Control of stock, which may require computer support, increases efficiency and can effect appreciable or even substantial reductions in costs. The value of a departmental stores management system will be enhanced if it can be linked to an existing hospital materials handling system.

2.30 Organising an efficient and economical system for supply, storage and disposal is demanding and complex. Systems and timetables for ordering supplies, delivery and disposal should be devised and agreed with the managers of relevant departments, including hospital stores, sterile

supplies department, pharmacy, laundry, catering and portering services. Good working relationships and communications with other hospital departments are of fundamental importance.

2.31 An effective balance of distribution of supplies between main and local stores in the unit is important.

2.32 Bags of soiled linen and bags of waste should only be held temporarily before being taken to the appropriate hold area to await collection.

2.33 Disposal of pressurised containers requires special attention – see SAB(88)79 – 'LPG Aerosol Containers: Risks arising from storage, use and disposal'. Specially constructed containers (see BS7320: 1990) should be used for "sharps", particularly needles.Use of sharps containers minimises the risk of injury to staff, particularly portering staff.

Domestic services

2.34 A domestic services manager (or equivalent if the service is contracted out) will be responsible for organising the unit's domestic cleaning services. Most of the work will be carried out by domestic services staff based in the unit. Less frequent major cleaning work will probably involve extra staff of contract services brought in for that purpose and may involve the use of equipment not normally held in the unit.

Catering facilities

2.35 It is assumed that the main meals will be prepared outside the unit. The method of delivery and the arrangements for ensuring they are served at the correct temperature will depend on local policy. The more common systems are either heated meals delivered in insulated heated trolleys or 'cook chill' meals delivered in cold insulated containers and regenerated in regeneration kitchens or delivered in regeneration trolleys.

2.36 Whatever the chosen system it is important that patients have a choice of meals, preferably at the time of the meal.

2.37 There is considerable support for the therapeutic value of a central restaurant style dining room where patients can select their meals from a servery and also choose their table companions. A central dining room facilitates the use of catering staff for the presentation and serving of meals allowing clinical staff to assist patients as necessary. If a central dining room is chosen it needs to be remembered that some patients will be unable to leave the ward and will therefore need dining facilities on the ward.

2.38 An alternate view favours the smaller grouping which occurs with small ward dining rooms with patients being served at a servery connecting the ward kitchen and the dining area. The smaller quantity of food delivered to each ward would probably result in patients needing to chose their meals the day before. There would be less opportunity to avoid particular table companions with this system.

2.39 Consultation with service users could be particularly useful with reference to meal arrangements.

2.40 Patients require the facilities to prepare light snacks and beverages on the ward.

2.41 This HBN assumes that staff will leave the unit for main meals although facilities are required in the unit where staff can relax and prepare and consume snacks and beverages.

Health records services

2.42 There needs to be a clear operational policy on the storage of, and access, to the health records. This volume assumes that only current records will be held in the unit. Other records may be stored in the main hospital records department.

Information management and technology

2.43 Information management and technology (IM&T) is fundamental to the successful operation of a comprehensive mental health service. The system selected should offer a wide range of facilities, and be consistent with local and NHS IM&T strategies which may be obtained from the Publishing Department, **DH Health Distribution Centre, PO Box 410, Wetherby, LS23 7LN, tel: 01937 840250/2**. A national overview of the trend towards networking and data communication networking systems is contained in 'A strategy for NHS-wide networking' which may be obtained from the NHS Executive. More detailed guidance on local area networks (LANs) is contained in the NHS IT Standards Handbook, Volume 2, which may also be obtained from the NHS Executive. **For IM&T strategies in Northern Ireland readers should consult with HPSS Directorate of Information Systems, Centre House, 79 Chichester Street, Belfast BT1 4JR.**

2.44 IM&T strategy must operate for the whole the mental health service, not just the acute unit.

2.45 Developments in telemedicine may require transmission of video images between mental health services and centres of specialist expertise.

2.46 The choice of systems and matters such as the location of computer terminals, the functions to include on the system, and access levels to information, should be determined locally. Examples of data handling needs which would be met by installation of a comprehensive IM&T include:

a. within the acute unit:
   (i) operating a patient administration system;
   (ii) maintaining the appointment system for day attenders and out-patients;
   (iii) providing management information, including clinical audit;
   (iv) managing materials;
   (v) managing statistical information, including feedback from patients, general practitioners and community nurses;
   (vi) storing reference material;

b. with other hospital/health service departments:
   (i) making appointments for out-patient clinics;
   (ii) receiving urgent results from the pathology department;
   (iii) receiving radiological images/reports;

c. with patients:
   (i) confirming appointments for day attenders and out-patients;
   (ii) prompting a final check that day attenders and out-patients are still able to attend;

d. with GP:
   (i) advising of admission;
   (ii) advising of attendance and/or requesting follow-up visit;
   (iii) advising of discharge and confirming post-discharge care plan;

e. the exchange of information between community psychiatric nurses and other appropriate professionals;

f. with ambulance services for transmission and receipt of clinical and transport information.

2.47 Project teams should:

a. consider the IM&T needs of the service at an early stage;

b. review current IM&T developments;

c. check that proposals conform with local IM&T policies;

d. ensure that sufficient account is taken in terms of space and engineering services provision at the design stage to meet the anticipated need for special power supplies, modems, visual display terminals (VDTs), printers and associated software, stationery, and conduits for cables;

e. where necessary, and if a suitable space is not available elsewhere, ensure that a room is provided within the department to accommodate the IM&T equipment. The space and environmental requirements should be obtained from the equipment manufacturer;

f. ensure that VDT screens are sited so that the displayed text is not visible to members of the public (although it may be considered an advantage to be able to turn the screen to enable the patient to check the accuracy of the information entered);

g. ensure that where VDTs are to be used, the lighting is designed to avoid bright reflections on the screen and to ensure that the contents of the screen are legible. Further guidance is contained in the CIBSE Lighting Guide LG3 and the Health and Safety (Display Screen Equipment) Regulations 1992;

h. ensure that equipment noise is controlled within acceptable limits and, where necessary, fit acoustic hoods or locate the equipment in a separate room. The use of quiet printers has a significant contribution to noise reduction;

j. ensure that adequate provision is made for the security of data and devices.

2.48 The 'Key Area Handbook-Mental Illness' describes joint working as one of the principles of information systems. It states: "joint working, both within the NHS and between the NHS and related agencies, is dependent on common coding language. All computer systems within the NHS should be designed to conform to the coding and technical standards being developed in the NHS Information Management and Technology Strategy. Social services departments should be closely involved in the design and implementation of systems".

3.0 General functional and design requirements

Environment and design

3.1 Designers should create an environment that will help patients feel at ease, be conducive to efficient working and contribute to staff morale. Particular note should be taken of 'Health buildings in the community' by NHS Estates, but reference should also be made to 'Environments for quality care' by NHS Estates, 'Demonstrably Different', by the Department of Health and 'Better by Design' by NHS Estates, prefaced by Tom Sackville MP.

3.2 External landscaping is of special value. Easy access to external recreational space and garden areas should be provided for patients. Care should be taken to ensure that these spaces are safe, secure and allow for observation from nursing areas.

3.3 External landscaping should be used to enhance the aesthetic quality of the views from within and outside the unit. Landscaping may be used to counter the impression of containment caused by walls and fences.

3.4 The design process should also include the choice of well-designed furniture and fittings and co-ordination of floor coverings and colour.

> "A poor environment can let down an otherwise excellent service. In the new culture of the Health Service managers are paying more attention to these issues".
>
> Virginia Bottomley, Foreword to "Environments for quality care", NHS Estates.

General design considerations

3.5 It is important that the proposed functions of the unit and the expected patient profiles are thoroughly assessed to ensure that the unit will be manageable. Within the acute mental health units, strong emphasis should be on space, observation, the provision of single rooms, access to outside areas and exercise facilities, flexibility of use and separate facilities for women. Patients using the unit are likely to be anxious, therefore the design should help to alleviate patient stress.

3.6 An acute mental health services unit should be planned and designed to provide patients and their visitors with high-quality facilities which will be as easy as possible for staff to manage and operate. The design should help to assure patients that they are receiving a first-class service. To this end, particular attention should be paid to the visual aspects of the department as well as to functional and environmental needs. Outside views are particularly important from patient areas and also from circulation areas.

3.7 The design of the unit must reconcile potentially conflicting requirements:

a. to encourage and support normal behaviour while allowing disturbed behaviour to be contained with minimal disruption and without prompting an over-reaction;

b. to preserve the privacy and dignity of patients, particularly where men and women are treated in adjacent spaces and share circulation and other spaces;

c. to provide staff with easy but unobtrusive visual and auditory observation, which is vital to safe and effective patient care.

3.8 It is essential that the policies for observation are relevant to the type of clients that the unit manages. Overall, the ambience of a therapeutic environment should be created. 'The Report of the Confidential Inquiry into Homicides and Suicides by Mentally Ill People' looked at reasons why patients lose contact with the psychiatric services and stated: "Sometimes it seemed that patients were reacting against an environment or a service which they found unacceptable". The Report recommended that: "living conditions should be pleasant, comfortable and acceptable to the patient. A poor environment engenders low morale in staff and patients".

3.9 Facilities offered to a person can do much to reflect or enhance status – size of room, quality of furnishings, etc are therefore important. It is important that patients perceive a degree of equity in terms of the facilities which they use.

3.10 The 'Health of the Nation Key Area Handbook – Mental Illness' identifies 58% of in-patient admissions as women and highlights one of the particular concerns as the choice of a single sex ward or area within a ward. The appropriate division of the sexes within a ward with multi-bed bays is usually only maintained by moving patients between single and multi-bed rooms as the balance changes which is unsettling for patients. Provision of single rooms would address this problem and create an environment in which patients settle more quickly by

having their own space and an ability to escape from others. Moreover, they also offer increased personal dignity and a sense of respect. The use of single rooms allows for male/female segregation to be maintained simultaneously with a high occupancy level and therefore a reduced requirement for beds.

3.11 The argument for single rooms is further endorsed by Humphrey Osmond in an article 'Function as the basis of psychiatric ward design', on the grounds that as some psychotic patients are muddled about their social and sexual status, single rooms are best to avoid confusion caused by normal social-cultural assumptions around sharing a bedroom with others.

3.12 Single bed rooms should always be provided for severely ill patients to reduce the likelihood of disturbance to other patients.

3.13 As the number of in-patients overall decreases with the move towards community services, the proportion of those severely ill increases, a significant number being compulsorily detained under the provisions of the Mental Health Act 1983. In Northern Ireland the Mental Health (Northern Ireland) Order 1986 equates to the Mental Health Act 1983.

3.14 Observation and maintenance of lines of sight are vital within acute areas and should be taken into consideration when designing and planning all facilities. Particular care should be taken with the design of public spaces at the entrance to the unit to ensure security and observation are maintained.

3.15 "Racetrack" design corridors, long corridors and designs including annexes and smaller corridors off the main route should be avoided, where possible, as they exacerbate the problems of maintaining adequate observation of patients at all times. At corners visibility can be improved by various means including, for example, glazed panels to both walls allowing vision through the corner, a suitable size chamfer at the corner, or high level mirrors. Corridors need to be sufficiently wide to allow a patient to be assisted by two members of staff, one on either side. Huge corridors and unnecessarily enlarged spaces can exacerbate certain schizophrenic experiences and should be avoided (Humphrey Osmond) but without creating a cramped and claustrophobic environment. Careful consideration should also be given to avoiding misshapen building structure which a patient could use to inflict deliberate self harm or attack.

3.16 Observation of behaviour is one of the most important activities in mental health care because it is the basis for much diagnosis, assessment and the monitoring of progress. Observation enables timely, effective staff intervention, to reinforce or reward behaviour or to minimise the consequences of unwanted behaviour.

3.17 Observation is also important in relation to the prevention of acts which could have damaging consequences either for a particular patient or for others. It is important that clear procedures and guidelines exist covering observation of patients assessed as presenting a high risk of serious harmful behaviour. The responsibility for observation of a particular patient and the level of observation required must be clear to all staff involved and particular care taken when responsibility is transferred between staff.

3.18 Observation essentially requires a sufficient number of staff with appropriate knowledge and skill. If there are insufficient staff to provide effective observation, it is unlikely that there will be adequate staff to intervene should the need arise.

3.19 Both staff and patients need to be able to summon assistance even if there is a risk that the system will be abused. This can be a two-level system where a patient can alert staff on the ward and staff can summon assistance from beyond the ward. The system should have the confidence of staff and patients to reduce anxiety levels.

User requirements

3.20 It is important that the users and potential users have confidence in the design of a facility. As many people and groups as possible should therefore have the opportunity to provide a contribution to the design brief. The design team should include, where possible, actual service users, representatives from organisations with a particular interest and members of staff. The mechanism for achieving this involvement needs to be considered early in the process. User involvement brings a valuable insight to the design process and also allows users the recognition that their experiences and opinions are valued.

3.21 The process must be recognised as iterative and strongly linked with the operational policies. Design features may require a change of operational policy so it is vital that the two are constantly checked against each other.

3.22 Different users including patients, staff and visitors will have their own specific needs .

3.23 Patients require:

- a bedroom for sleep and personal space for quiet retreat;
- access to sanitary facilities with privacy;
- a means of summoning assistance;
- secure storage for personal belongings;
- dining facilities;

- facilities to prepare snacks and beverages;
- the opportunity for association with others;
- a range of activities and the space to engage in them;
- natural light, outside views and access to outside spaces;
- opportunity for confidential discussions with staff;
- facilities to receive visitors.

3.24 Staff require:

- a design which facilitates observation of patients;
- a design which facilitates the effective deployment of staff;
- sufficient space in which to work comfortably;
- a means of summoning assistance from other staff;
- space for reporting, handovers and other administrative activities;
- quiet space for thinking, planning and administration away from the multidisciplinary team;
- base;
- natural light and outside views;
- facilities to rest and consume beverages.

3.25 Visitors require:

- easy access with no undue restrictions on visiting;
- children need to be able to visit a parent or other relative;
- a design which is welcoming;
- facilities for private discussions with the patient and/or staff;
- access to sanitary facilities;
- access to beverage facilities.

Location

3.26 This HBN assumes that adult acute mental health services will be close to a general hospital or other establishment, be able to share the support services and have ready access to diagnostic and therapeutic services.

3.27 The location for the in-patient facilities needs to be decided locally taking all the relevant factors into account in the choice of a site which best serves the local community. There is increasing support for non acute general hospital sites.

> "We recommend an urgent review of the therapeutic suitability of district general hospital mental health units. Many nurses consider the DGH unit has serious deficiencies as a therapeutic setting. Issues of design and location do affect the provision of care, and many such units have to change to respond to the demands of local populations" – Working in Partnership – Report of the Mental Health Nursing Review Team – Executive Summary. Department of Health. 1994.

3.28 As many of the acute general services – particularly diagnostic services–- move into community locations, there is more opportunity to move acute mental health service provision off hospital sites and still retain proximity to diagnostic services by locating the acute adult mental health services on or close to community sites [see HBN 36 – Local healthcare facilities]. Sharing of a site may help to reduce the stigma and isolation which could occur with a stand alone unit.

3.29 Wherever located, the arrangements for providing medical staff cover need to be clear as units for acutely ill patients must be able to obtain appropriate medical support quickly. On-site psychiatric cover is only likely to be feasible if the unit supports several "firms" so that a junior doctors' rota can comply with the agreements on junior doctors hours. There is however a recognised need for staff to train in more community orientated settings.

3.30 Units dispersed into community settings tend to be smaller in size and present a more user friendly, less intimidating image. The staffing levels of such units need to be carefully considered because, unlike the larger units, there is not a pool of on-site staff to call on in the event of difficulties. Operational policies need to include emergency support arrangements. The units need to be sized to ensure that a critical mass of staff is achieved.

3.31 The location of facilities for acute mental health services is dependent on the availability of sites and the ability to obtain the necessary planning consents.

3.32 It is more important that units providing assessment and short term in-patient services to elderly people with mental illness are located on a general hospital site. Elderly people with mentally illness often have significant physical problems needing medical investigations and treatment and there should be easy access to good quality medical services (See Chapter 5 for a detailed description of accommodation for elderly people with mental illness).

3.33 Where an acute unit is located on a general hospital site, the unit should:

a. be in a separate building from the rest of the general hospital. Housing the unit in a separate building helps to create an atmosphere which is distinct from the rest of the hospital and less clinical in nature;

b. have easy unimpeded access directly to the hospital grounds;

c. have its own external main entrance off the hospital road system;

d. be sited at ground level on a single floor, wherever possible.

3.34 It is important that, wherever possible, patient areas are not above the first floor.

Functional considerations

3.35 It is now recognised that the needs of each area vary and that the facilities required to meet those assessed needs also vary making standardisation less appropriate.

3.36 Whether or not the acute service is dispersed into the community, the opportunity may exist for each ward (or small unit) to develop an area of special interest should there be a need for a higher level of skill than that available within the general service but not requiring the use of specialised centres. For example, one ward may take an interest in mother and babies, another in patients who abuse drugs, while another may cater for patients with both learning disabilities and mental illness.

3.37 To support people in their own homes wherever possible, a wide range of home-based and daycare-based services have been developed. Various types of supported accommodation providing for temporary asylum or medium and long term support help to reduce admissions to the acute units.

3.38 It is for each authority to decide on the range and volume of mental health services to be provided based on an increasingly detailed needs analysis. In addition to various other community elements there will be a need for acute services which may include:

- in-patient facilities;
- out-patient facilities;
- day patient facilities;
- an ECT suite;
- administrative and support facilities.

3.39 The out-patients facility, ECT suite and administrative facilities described in this HBN serve the adult and elderly acute mental health services.

3.40 The operational policies for the service as a whole and its component parts must be used to guide the design of the facilities and as the basis for the operational procedures. User groups can make useful contributions to the formulation of operational policies. Their involvement should be regarded as best practice.

Disabled people

3.41 It is essential to ensure that suitable access and facilities are provided for people who have problems of mobility or orientation or other special needs. This category includes people who are wheelchair-bound, those who for any reason have difficulty in walking, people with a sensory handicap such as visual or hearing impairment, and those whose first language is not English. Project teams are reminded of the need to comply with the provisions of:

a. The Chronically Sick and Disabled Persons Act;

b. The Chronically Sick and Disabled Persons (Amendment) Act 1976;

c. The Disabled Persons Act 1981;

d. The Disabled Persons (Services, Consultation and Representation) Act 1986;

e. Department of the Environment Approved Document M (1992) to The Building Regulations 1991;

f. Disability Discrimination Act 1995.

Legislation applicable in Northern Ireland:

a. The Chronically Sick and Disabled Persons (Northern Ireland) Act 1978;

b. As (a) above;

c. Disabled Persons (Northern Ireland) Order 1982;

d. Disabled Persons (Northern Ireland) Act 1989;

e. Technical Booklet R to the Building Regulations (Northern Ireland) 1994.

3.42 People with disabilities may be patients, visitors or staff.

3.43 Attention is drawn to BS5810: 1979 'Code of Practice for Access for the Disabled to Buildings' (under review). One of the effects of the 1981 Act is to apply this British Standard to premises covered by the 1970 Act, which includes those open to the public. Practical guidance for complying with The Building Regulations is issued by the Department of the Environment under Approved Document M: 'Access and facilities for disabled people'. **See 3.41 (e) above.**

3.44 Project teams should refer to HBN 40 – 'Common Activity Spaces' – a set of four volumes which includes guidance and ergonomic data sheets on access, space and equipment relating to disabled users of health buildings.

3.45 It is recommended that project teams consult local representatives of disabled people, or the Centre for

Accessible Environments, with regard to the planning of spaces used by patients and escorts.

3.46 In locations where public telephones are provided, one should be mounted at a height suitable for use by a person in a wheelchair and the handset fitted with an inductive coupler to assist any person using a hearing aid. See also HBN 48 – 'Telephone Services'.

Mother and baby provision

3.47 Specialist mother and baby units should be provided where they can be justified by the level of demand but are outside the scope of this HBN.

3.48 The issue of facilities for mothers and babies is a controversial one, the overall view being that it is inappropriate to care for mothers and babies alongside general acutely ill mental health patients. It is important that commissioners of services therefore ensure that there is adequate provision for mothers and babies available to them preferably within specialist units. The level of demand will need to be assessed locally in deciding the level of provision.

3.49 However, if a specialist unit is not readily accessible there may be a need to admit a mother and her baby to the local acute unit. Close liaison will be required with the maternity, pediatric and health visiting services. The safety of a baby admitted to an acute mental health service unit is a special consideration. This may be achieved by the provision of a self-contained flat which is separately staffed and physically separate from the rest of the unit.

3.50 Individual assessment of patients is always vital because different facilities and arrangements may be needed, for example if a patient is anxious about being separated from her baby, the cot could be in the same room as the mother, whereas if there is an assessed risk that the mother may harm the baby, it may be decided to place the cot in an adjoining room with staff supervising access. The cost-effectiveness of separate facilities needs careful consideration especially if there is a low level of expected use.

3.51 If the mother and baby facilities are not completely self contained, they should be positioned away from any public areas and be well supervised by staff.

Admissions

3.52 The admission of disturbed patients or the admission of a patient during the night can have an unsettling effect on other patients. Where a patient is to be admitted to an intensive care area it is useful to have an entrance near to that unit to avoid taking a disturbed patient through the main entrance and along the main circulation route to the ward.

3.53 This HBN describes an optional admissions suite. This allows patients not well known to the service to be assessed prior to admission to a ward and acts as a form of triage. It also allows most of the admission procedure to be performed prior to the patient arriving on the ward. At night this can reduce the disruption caused by the patient's arrival on the ward.

Intensive care

3.54 Some patients may be assessed as needing care in a physically secure environment and an intensive care ward may need to be specifically designated for this purpose.

3.55 The Mental Health Act Code of Practice recommends ". . . authorities/NHS trusts to ensure that: . . . written guidelines are provided, setting out and clearly distinguishing between the categories of patient where it is appropriate to use physically secure conditions and those where it is not. The guidelines should include a clear policy for the practice, proper procedures and safeguards, the justification for its use and the circumstances in which it can be used".

Violence

3.56 Some patients may be violent. Violent behaviour includes verbal abuse or physical attack on staff, patients or visitors. It may take the form of self harm, or it may be directed at property. Violent behaviour is a feature of several common clinical conditions; patients with these conditions are likely to require urgent attention. Patients and escorts may also become aggressive for reasons associated with the attendance, such as anxiety or a requirement to wait.

3.57 The attitude of staff who receive, assess and register patients is important; special training is likely to prove helpful. The Royal College of Psychiatrists has published a document "Strategies for the Management of Disturbed and Violent Patients in Psychiatric Units" 1995 which would be helpful to project teams in understanding the issues involved.

3.58 The Mental health act code of practice lists the following as possible causes of problem behaviour:

a. boredom and a lack of environmental stimulation;

b. too much stimulation, noise and general disruption;

c. overcrowding;

d. antagonism, aggression or provocation on the part of others;

e. a generally unsuitable mix of patients;

f. the rewarding of undesirable behaviour by attention;

g. the inability to protect oneself against harm as a result of mental disorder.

3.59 The code of practice includes in its list of general preventive measures (to prevent behaviour problems):

a. "giving each patient a defined personal space and a secure locker for the safe keeping of possessions";

b. "ensuring access to open space";

c. "organising the ward (in hospital) to provide quiet rooms, recreation rooms and visitors rooms";

d. "ensuring access to a telephone";

e. "encouraging energetic activities for younger patients".

Security

3.60 Theft of NHS property and personal property of patients, escorts and staff, and vandalism of NHS property are problems which require addressing in the planning and design of any department. Consideration needs to be given to risk to NHS property and to preventing patients or visitors from gaining unauthorised access to other parts of the building. Reference should be made to Scottish Office PAN 46 – 'Planning for crime prevention' and the NAHAT Security Manual. **In Northern Ireland HSS (PDD) 3/93 advised Trusts, Units and Boards of the availability of the NHS Security Manual.**

3.61 The Health Estate Facilities Management Association is currently conducting a national scoping study of 'Security in Community based Mental Health Facilities' and a report is expected in April 1996. Project teams should also consult Health Facilities Note (HFN) 05 –'Design against crime: a strategic approach to hospital planning'. HFN 05 **(which has not, as yet, been issued in Northern Ireland)** recommends that only after making buildings as "safe" as possible by means of a number of design processes should consideration be given to the provision of security systems, such as electronic locking devices, alarms, closed-circuit television and other items of hardware. Thought needs to be given to how the security of the building and its residents will interact with the therapeutic atmosphere. Closed circuit television, for example, can enhance the paranoia that some patients might have.

3.62 Project teams are also reminded that where violent incidents are foreseeable, employers have a duty under Section 2 of the Health and Safety at Work etc Act 1974 to identify the nature and extent of the risk, and to devise measures which would provide a safe workplace and a safe system of work. Such measures should reflect the guidance given in the Health Advisory Service Committee report 'Violence to staff in the health services', issued in 1987. **Northern Ireland equivalent is Health and Safety at Work (Northern Ireland) Order 1978.**

3.63 Although violence is not as common as some public perceptions suggest the unit should be designed so that risk of violence and security problems are minimised. Important design requirements include:

- creation of a pleasant environment, particularly the reception desk and in the waiting area. The reception desk should be friendly and non-confrontational. The receptionist should be able to make eye contact with people as they approach the entrance and greet them immediately on entry. There is evidence that people are more relaxed at welcoming open-plan reception desks than at enclosed "secure" reception offices. A point of refuge is required in the event of real danger to staff;

- good observation. Direct and unimpaired visual contact with colleagues is important. Reception desks and waiting areas that are open and well-lit facilitate scrutiny by patients, escorts and staff. Observation should be addressed both by design and operational policies;

- careful selection of furniture and equipment bearing in mind how items break if abused and that loose items may be used as weapons. Care must be taken not to undermine the therapeutic atmosphere and the level of risk needs to be assessed in order to achieve a reasonable balance:

- care that fixtures or fittings such as curtain rails or coat hooks, which could be used for attempts at suspension, are low weight bearing. This also needs to be balanced against any risks arising from the breakage or collapse of the fittings either accidentally or through deliberate action;

- good communication systems taking account of the perception of staff towards their own levels of security. Consideration should be given to alarm call systems, including the issue of personal attack alarms if appropriate. All rooms should be covered by an emergency call system which can be operated if the door or exit is blocked.

3.64 Staff should supervise the entrance to prevent access by people who have no valid reason for attendance. At night, closed-circuit television surveillance of the main entrance with a TV monitor at a staffed area may be appropriate. Security may be achieved by temporarily locking doors. Care must be taken, however, to ensure that such arrangements do not contravene safety measures, such as fire regulations.

3.65 The project team should discuss security with the officer-in-charge of the local crime prevention department and the trust's security officer or adviser at an early stage in the design of the building. Fire and security officers should be consulted concurrently because the demands of fire safety and security may sometimes conflict. The attention of planners is drawn to NHS Management Executive circular HSG(92)22 (in Wales WHC(92)86) about security and the revised NHS Security Manual to which it refers. **In Northern Ireland HSS (PDD) 3/93 advised Trusts, Units and Boards of the availability of the NHS Security Manual.**

Car parking

3.66 An acute mental health unit providing support to a wide range of community services will have many staff from various disciplines attending the unit, therefore more car parking space is needed than would be expected solely from the size of the unit and the number of staff based in it. This will be particularly important in areas with limited public car parks and where street parking is difficult.

Art in health buildings

3.67 Works of art and craft can make a significant contribution towards the internal environment. This need not be limited to the conventional hanging of pictures on a wall. Every opportunity should be taken to include works by artists and craftspeople in appropriate spaces. These may include paintings, murals, prints, photographs, sculptures, decorative tiles, ceramics, textile hangings and furniture.

3.68 It is also useful to have a variety of pieces using different media or size, etc so that changes can be made to the environment periodically.

3.69 It is possible to present information in permanently or temporary mounted displays where art and promotional material can be combined.

3.70 When installing art in health premises it is always advisable to consult with users of the facility to increase the level of acceptance.

3.71 Specialist advice should be sought regarding the effect of different types of art on the emotional state, for example landscapes and seascapes are generally considered to be relaxing while close up view of animals looking directly at the observer are thought to increase stress. Abstracts have also been shown to arouse aggression in certain psychiatric patients.

3.72 Often it is works of art and craft which lend special identity to a waiting area or recovery room, and which help give a sense of locality.

3.73 Advice should be sought from experts on:

a. obtaining grants. In some cases, regional arts boards or charitable trusts with a local interest may offer grants to add money within a capital scheme which is set aside for art or craft works. The Royal Society of Arts offers bursaries for collaborations between architects and artists. The Kings Fund – "Art in Hospitals" programme is a valuable resource;

b. obtaining sponsorship. Local industries may see an advantage in supporting an arts project as a way of reaching a wide, or particular, audience. Links with local art colleges could result in low cost commissions.

Courtyards

3.74 Courtyards should not be created within patient areas where they produce a "racetrack" effect and hinder observation. Courtyards may however be acceptable when produced by the junction of patient areas and areas to which the patients do not have access. Courtyards can also be used for recreational purposes provided the requirements for privacy are not compromised.

3.75 Courtyards enable more rooms to receive natural daylight and ventilation, and provide an outlook which can compensate for the lack of a longer view. Suitable layout and planting can help to preserve privacy in surrounding rooms. Ground-cover planting is preferred to grass as it is often more successful and is easier to maintain. Some sheltered area outside is required for both fine and bad weather use.

3.76 Access for maintenance should be from a corridor so that patients and staff are not disturbed. Staff should take care to ensure that they do not intrude on patient privacy when entering a courtyard.

3.77 Reference should be made to HBN 45 – 'External works for health buildings' for more detailed guidance on this subject.

Natural and artificial lighting

3.78 Sunlight enhances colour and shape, and helps to make a room bright and cheerful. The harmful effects of solar glare and heat gain can be dealt with by architectural detailing of window shape and depth of reveals, as well as by installing external and internal blinds and curtains. Bay windows which allow seating in comfort may be considered.

3.79 Wherever possible, spaces to be occupied by patients, escorts or staff should have natural daylight with an outside view. Natural lighting is important to the well-being of patients but the need for privacy should also be taken into account.

3.80 Artificial lighting, as well as providing levels of illumination to suit activities, can make an important contribution to interior design. Designers should develop a lighting scheme that will help to promote a high quality image of the services being offered and a non-clinical, soft environment in as many spaces as possible. Levels of artificial light can also be varied easily by the use of dimmer switches.

3.81 Artificial lighting provided in spaces occupied by patients should minimise glare and shadow as this allows facial expressions to be seen more easily and aids communication.

3.82 Fixed luminaires should not be sited immediately above positions where patients lie on a couch or a trolley. This applies to all spaces where patients are consulted, examined and treated.

Telephones

3.83 Telephones should be provided in accordance with the needs of the unit. Ringing telephones, in, and adjacent to, consultation/examination/treatment spaces are a particular nuisance at any time, and consideration should be given to the installation of a telephone system which will enable any incoming calls to be intercepted at a more appropriate location, for example the ward office or staff base.

3.84 Public telephones will be required for the use of patients, their escorts and visitors, preferably in a convenient and accessible location in, or near to, the main entrance and/or waiting area. Reference should be made to paragraph 3.42 above with regard to the provision of public telephones for disabled people.

Internal rooms

3.85 If there are internal rooms in areas used by patients, it is important to avoid the creation of a "racetrack" around the internal rooms as this can cause serious difficulties for staff trying to observe patients.

3.86 Internal rooms may contribute to economy in planning. If, however, additional artificial lighting and ventilation are required, both capital and running costs are likely to be increased.

3.87 Use of internal rooms, other than en-suite facilities, should be avoided if possible and in any event should be limited to activities which:

a. need a controlled environment; or

b. are carried out intermittently by different individuals, for example some storage areas.

3.88 Rooms that are likely to be occupied for any length of time by a patient, an escort or a member of staff should have natural light.

Ventilation

3.89 Natural ventilation is preferred unless there are internal spaces or clinical reasons that call for mechanical ventilation or comfort-cooling systems.

3.90 Mechanical ventilation and comfort-cooling systems are expensive in terms of capital and running costs; planning solutions should be sought which take maximum advantage of natural ventilation. Mechanical ventilation costs can be minimised by ensuring that, wherever practicable, core areas are reserved for rooms whose function requires mechanical ventilation irrespective of whether their location is internal or peripheral, for example sanitary facilities and dirty utility rooms.

Noise and sound attenuation

3.91 Any unwanted sound is a noise and may disturb patients and staff. Noise-sensitive areas should be located as remotely as possible from internal and external sources of unavoidable noise.

3.92 Speech privacy is essential in spaces where personal and confidential discussions are held, such as patient bedrooms, interview rooms and consulting/examination/treatment spaces; it should not be possible to overhear any discussions taking place in adjoining spaces when the conversation is at a normal volume.

3.93 Particular care should be taken where the adjoining spaces are waiting or quiet sitting areas.

3.94 Sound transmission can be reduced by use of sound-attenuating partitions and doors. Use of soft floor-coverings, provision of curtains and acoustic treatment of walls and ceilings (where hygienically acceptable) will improve sound absorption in a space.

Finishes

3.95 The quality of finishes in all areas should be of a high standard; the cost allowance makes due recognition of this need. Guidance on the selection of finishes is provided in the relevant Health Technical Memoranda (HTMs).

3.96 Finishes should be robust enough to withstand accidental impact and additional protection should be provided at likely points of contact. Trolleys and items of mobile equipment which may cause damage should be appropriately buffered. Finishes should be capable of being patch repaired in the event of accidental or deliberate damage.

Colour

3.97 The colours of surfaces in spaces occupied by patients should not distort the colour rendering of light sources. In clinical areas it must be possible to define clearly and identify easily any changes to a patient's skin tone and colour. Decor colours should be light and pleasant with sufficient contrast to help partially-sighted people distinguish obstacles. "Warm" colours are preferable. Some colours are considered to be relaxing and others stimulating so clinical advice should be taken on the appropriateness of various colours in different settings.

Floors

3.98 Floor coverings and skirtings should contribute to the provision of a non-clinical environment, yet at the same time, be hardwearing. They must not present a hazard to disabled people, nor should they restrict the movement of wheeled equipment. Floors should not be (nor appear to be) slippery, and the floor patterning should not induce disorientation. Changes of floor level should be avoided wherever possible. Surface drag, static electricity, flammability, infection hazards and impermeability to fluids must also be considered. HTM 61 – 'Flooring', should be consulted for advice on user requirements and performance selection.

3.99 Finishes should be appropriate for the activities to be carried out, restricted in variety for ease of cleaning, and be compatible with agreed cleaning routines.

Doors and frames

3.100 Doors and frames are particularly liable to damage from mobile equipment, and materials should be used which will withstand this. All double swing-doors should incorporate vision panels. Except in sanitary facilities, there should be vision panels in the doors to all areas to which patients have access, but privacy, safety or other considerations may require that the panels should be capable of being obscured. All patient area doors must be capable of being opened outwards in the event of emergency. As well as the other issues associated with large glazed areas large plate glass door panes may produce reflections which may be confusing for some patients. Where necessary, doors should be capable of being fastened in the "open" position. Magnetic door retainers should not restrict the movement of traffic. Refer to HTM 58: – 'Internal doorsets.'

Windows

3.101 In addition to the various statutory requirements, the following aspects require consideration: natural lighting and ventilation; insulation against noise; user comfort; energy conservation; the prevention of glare; the provision of a visual link with the outside world. Windows should have a pleasant outlook, if possible. The use of low window sills enables views from the window when seated in a chair.

3.102 The specification of all windows and internal glazing, including in vision panels, light fittings, pictures and mirrors should consider safety. The minimum standard for any glazing is given in BS6262 – 'Code of Practice for Glazing in Buildings' 1982 and its subsequent revisions, but higher specifications should be considered because of the nature of the risks. (BS6262 – Part 3: 'Fire, Security and Wind Loading' is being revised. Project teams should check for the latest version.)

3.103 Glazing in fire resistant partitions must comply with the necessary fire resistance standards.

3.104 Glazing in patient areas should be chosen with care to protect patients from accidental or deliberate injury and a local assessment of risks will be required. How easily the glazing breaks and how it breaks are the main considerations. The strength of the glazing depends on its thickness in relation to its pane size and the type of material.

3.105 The main choices are between glass and polycarbonate. Polycarbonate is extremely difficult to break but can melt in fire and has a reputation for discolouring and being easily scratched.

3.106 Glass can be float (ordinary), toughened or laminated. Float glass is not usually considered appropriate for the inner leaf of double glazed windows or other internal glazing because of the thickness which would be required to produce the level of safety required. Toughened glass breaks into very small pieces which are not likely to cause serious injury at the time of impact but could scatter or be scooped up and misused. Laminated glass usually remains in place on impact and again is not likely to cause serious injury at the time of impact but broken pieces could be peeled away from the film and used to cause subsequent injury. It is however expected that staff will have responded to the attempts to break the window.

3.107 Some mental health service providers have confidently specified double glazed units with laminated glass on the inner leaf and float glass for the outer leaf. The thickness required depends on the size of the panes. If the outer pane is next to an external activity area, toughened or laminated glass should be used.

3.108 Glass and plastics manufacturers are constantly improving the performance of glazing products. Some manufacturers have recently developed sophisticated and sometimes complex laminated glazing panels. These panels laminate in 2, 3, 4 or even 5 layers various combinations and thickness of polycarbonate, toughened and float glasses. The resultant window can be bandit proof, shotgun proof, sledgehammer proof, and so on, as required.

3.109 It is also important to note that the frame design will determine whether the glazing will stay in place after the attack has taken place. This may be important if the window must prevent access or escape even after being broken.

3.110 Windows should have restricted opening to prevent people climbing out as there have been a number of incidents involving patients falling from windows (see EPL (95)27). The restrictors should be tamper proof.

3.111 Design should ensure that it is possible for cleaners to have easy access to the inside and outside of windows. The outside of windows should be cleaned from outside, wherever practicable. General guidance on windows is available in HTM 55 – 'Windows'.

Maintenance and cleaning

3.112 The unit should be constructed with solid internal walls rather than plasterboard or similar.

3.113 Materials and finishes should be selected to minimise maintenance and be compatible with their intended function. Building elements that require frequent redecoration or are difficult to service or clean should be avoided but a compromise is sometimes necessary between items that have a low acquisition cost but are expensive to maintain and those with a high acquisition cost but are relatively inexpensive to maintain. The life cycle cost of the building elements, in these instances, should be analysed and used to assist the project team in their decision-making process when there is a choice of product available. Special design consideration should be given to corners, partitions, counters and other elements which may be subjected to heavy use. Wall coverings should be chosen with cleaning in mind. Guidance on these aspects is given in HTM 56 – 'Partitions', HTM 58 – 'Internal doorsets', HTM 61 – 'Flooring' and HTM 69 – 'Protection.'

3.114 Special consideration should be given to the provision of a dedicated bin store.

Staff change

3.115 It is unlikely that many staff will wear uniforms but protective clothing may need to be worn from time to time. Changing facilities are required within the unit and shower facilities should be available. This volume assumes that the changing facilities will be for multi-disciplinary use.

3.116 If central or zonal changing accommodation is used, it will be necessary to provide within the unit:

a. facilities for staff to change;

b. small lockers for securely storing small items of personal belongings;

c. toilet and shower facilities.

3.117 This volume assumes that all staff who need to change will do so in the unit and describes changing accommodation, including staff change/locker rooms, showers and WCs for use by staff.

3.118 It is essential that project teams assess as accurately as possible the expected local usage of staff change/locker rooms. The following issues require particular attention:

a. the total number of users; account should be taken of part-time as well as full-time staff;

b. the greatest number of users present at one time;

c. the number of "permanent" users and of "occasional" users;

d. the proportion of the total contributed by each sex;

e. the policy for the allocation of lockers, that is, personal or shared use.

3.119 Experience suggests that it is advisable for staff permanently employed in the unit to be assigned personal lockers. If training courses are regularly held in the unit, some lockers should be reserved for students.

Domestic services

3.120 Accommodation is required in the unit where cleaning equipment can be stored and cleaned, and as use for a base for domestic services staff. The size and content of the space will be determined by the scope and extent of the services provided from it, as determined by the whole hospital policy. The type and number of items of equipment and materials to be stored will depend upon the finishes provided, the number and deployment of domestic services staff, and the frequency of cleaning.

Education and training

3.121 A seminar room is required where education and training sessions can be held for staff working in the unit. This seminar room may also be used by visiting students.

3.122 If it has been agreed that the teaching of undergraduate medical students will take place in the unit, and their number necessitates additional space, the relevant accommodation should be increased. Reference should be made to the Department's letter DS 65/74 about teaching hospital space requirements, issued in March 1974, and letter DS 86/74 dated 27 March 1974. (In Wales, reference should be made to letter HSD 3/57/1 dated 29 April 1974.) Advice should be sought from the medical school regarding changes to the requirements since these letters were issued.

3.123 Teaching requiring special facilities should take place in a post-graduate medical centre, or in a hospital education centre, but some teaching may take place within the acute unit by shared use of space possibly using the ECT waiting room or post-ECT lounge.

4.0 Adults with acute mental illness – specific functional and design requirements

Entrance and reception area

4.1 There should be easy access to the site. From the site entrance and from the car parks to the entrance to the unit there should be clear direction signs. Index maps may be useful but the design of the facility should ensure the entrance is obvious.

4.2 Most patients arriving at the unit will be ambulant but some, especially those attending services for the elderly, may be in wheelchairs or use walking aids. Provision needs to be made for patients arriving on a stretcher trolley although this would be rare.

4.3 The unit should have its own entrance with only one main access point. Any link corridors with the main hospital should enter the unit at this access point so that all entries and departures are clearly visible. (For operational reasons, and to prevent the total size of the unit becoming too big, it may be necessary to have a separate entrance to the facilities for elderly people with mental illness.)

4.4 A separate service entrance will be provided for the delivery of goods, etc. This will be locked when not in use.

4.5 The entrance to the unit will be via a draft lobby with two sets of doors. It is for local decision whether the doors are fitted with an interlock system. From the entrance the reception should be clearly visible.

4.6 The reception counter should if possible be naturally-lit and provide a low, open, friendly facility that does not give any sense of a barrier or generate a feeling of "them and us" for the patient

4.7 Staff at the reception desk need a clear sightline through the entrance area to be able to make eye contact with and greet people arriving and also as a security measure, and should be able to view all waiting areas. Receptionists should be able to raise an alarm in case of danger from violent behaviour or other emergency situation.

4.8 A fall-back situation may be provided, for example the ability to retreat into a safer lockable room which could also be used as a general reception office or store, or possibly a patient finance/banking service point. Any "safe" room must have a telephone.

4.9 Space will be required at the reception desk for visual display terminals (VDTs), keyboards and a working supply of stationery and office accessories.

Waiting areas

4.10 The waiting area at reception should be informal and divided so that family groups can sit together. There should be easy access to WCs, including wheelchair access facilities from the waiting area. Vending machines are often appreciated but provision needs to be made for the disposal of litter. Waiting areas are useful locations for displays of various types of information.

Wards

General

4.11 On the wards there should be a clear distinction between private areas, namely patients' bedrooms, and the public areas including lounge, foyer and dining areas. The bedrooms could be grouped in small clusters of about five rooms to help reduce the apparent scale of the ward and to make the provision of separate facilities for women easier to achieve. This would also make the separation of vulnerable patients from those who may abuse them easier to achieve.

4.12 Restless patients should be able to wander about between the various public spaces and their own rooms without creating problems of observation or any problems for the functioning of the unit. It should not be necessary for a member of staff to follow a patient around constantly.

4.13 Adult acute wards should not have more than about 20 beds. The bed allocation/management system should ensure that, once admitted, patients do not need to be moved for non clinical reasons.

"Wards that are too large make it difficult to deliver personalised care for individuals. Insufficient numbers of beds mean that the atmosphere becomes unsatisfactory because of the need to remove patients, which sometimes involves lodging them on other wards, with little warning, and inevitably leads to a greater proportion of individuals becoming upset and exhibiting disturbed behaviour". *(The Health of the Nation, Suicide Prevention.)*

Bedrooms

4.14 Single rooms with en-suite facilities should be designed to avoid creating a narrow corridor at the entrance to the room and have doors which can be opened outwards in an emergency. Bedroom doors will need an observation panel with an internal curtain which would allow the patient to choose whether they are observed through the open door or through the window, both methods addressing the problems of observation associated with single room provision. Patients may wish to be able to lock their rooms to safeguard their property when they are not in them and to increase the feeling of security and privacy. Staff need to be able to open the door rapidly in the event of emergency. The lock could have a thumb turn mechanism from the inside of the room but be key operated from outside. Great care needs to be taken to ensure that access to, or egress from, the room is not compromised in the event of a fire or other emergency situation.

4.15 It is for local decision whether telephone jack points and or television aerial sockets are installed in bedrooms.

4.16 Rooms should be domestic in nature, their main function being to provide sleeping accommodation and an area of personal space for the patient. They should be furnished with divan beds which are high enough to facilitate getting in and out and which will not present problems with bedmaking. A King's Fund variable height bed may be substituted if a patient has difficulty with the height of the divan but separate storage will be needed for the bed when not in use.

4.17 The use of King's Fund type beds will necessitate the use of 1fi leaf doors. Generally the use of inward opening single leaf doors is considered to be more conducive to a homely less institutionalised environment. Doors should be capable of being opened outwards in an emergency situation.

4.18 Personal storage facilities with appropriate security for patients' clothing and personal possessions should be provided within each bedroom, with a small store elsewhere for the personal belongings of patients who temporarily cannot be permitted to have access to them. Furniture will include a wardrobe, a chest of drawers and chairs.

4.19 Speech privacy is very important as patients may be interviewed or receive visitors in their rooms, and they may watch television or listen to music so a reasonable level of sound attenuation is required.

4.20 Standard hospital bedhead units, piped oxygen and suction are not required. Patients who have minor physical illnesses may be cared for in their rooms but not if the physical condition warrants in-patient care as this would be provided in a general hospital. If it is intended to nurse physically ill patients, general hospital-style single rooms can be substituted in numbers to be decided locally.

4.21 Every room and en-suite facility should be equipped with an emergency call system. The design and positioning should allow a person to get to the alarm call at all times when exit through the door is blocked.

En-suite facilities

4.22 Project teams will need to decide if any rooms should not have en-suite toilet and shower facilities.

4.23 Bedrooms may have en-suite WC, wash and shower facilities with an unbreakable mirror and shaver point. The light switch to the en-suite facility could be outside the door. The facilities should be designed to avoid awkward corners. The shower should have a floor drain. The door to the en-suite facilities should have a privacy lock with a clearly visible "vacant/engaged" indicator and should have an external locking release which can be used quickly by staff. Doors should be able to open outwards in an emergency.

4.24 It should be possible to lock the en-suite facilities to prevent use where these are considered inappropriate to the care of a particular patient.

4.25 Alternatively, if en-suite facilities are not provided patients will need to share WC and shower/bath facilities. These facilities need to be provided close to the sleeping areas and take account of the need for separate facilities for women.

4.26 Some of the en-suite facilities should have wheelchair access, the number required needs to be determined locally although it is much easier to have all the rooms and facilities wheelchair accessible than having designated ones.

4.27 The patient/nurse call system should be located just within the wet area, adjacent to the shower control. This should be provided at a sufficiently low level to be within reach of a patient who may have fallen or collapsed. If a pull-cord is used, this should be low weight bearing, even though any misuse should activate the call system.

4.28 The decor, fixtures and fittings should be in contrasting colours/tones to aid visually-impaired people to see where one surface ends and another begins.

4.29 There may be a need to control en-suite facilities, for example to turn off the water supply for pre-anaesthetic patients, or to disable basins/WCs to prevent unnoticed vomiting by patients with anorexia or bulimia but such controls should be used with caution as they may undermine the relationship with the patient by

demonstrating a lack of trust and reducing the patient's control of the environment.

Mother and baby facility

4.30 Subject to the operational policy of the acute unit, there may need to be the facility to provide care for a mother who needs to keep her baby with her if there is no specialist mother and baby unit within a reasonable distance. Some mothers may refuse or delay admission if they have to be separated from their babies.

4.31 This facility could be achieved by the use of two adjoining rooms to provide a lounge and bedroom. The en-suite area of the room made into a lounge could be used for a beverage point. This has the advantage of making it easier for the rest of the family to visit. If the connecting door was lockable, with additional applied panels to enhance acoustic attenuation, the rooms could be used for other purposes when not used for a mother and baby. The lounge could also be used as an extra quiet room.

4.32 Alternatively, a larger room could be provided with disabled facilities which would serve the dual function of providing for a mother and baby when the need arose but which could also be used for a disabled patient when not in use by a mother and baby.

Sanitary facilities

4.33 Where en-suite facilities are not provided, the minimum scale of provision of WCs is one per five patients. Additional WCs should be included in bathrooms and shower rooms. Each WC should have a wash-hand basin. It will be a matter for local decision whether WCs are separately designated for men or women, but the labels on the doors should be interchangeable according to the ratio of male to female patients.

4.34 Bath/shower rooms should be provided on a scale of at least one to six patients. The proportion of bathrooms to shower rooms is a matter for local decision. One bathroom should be an assisted bathroom, as should one shower room. (See HBN 40 – 'Common Activity Spaces', Volume 2.) All bathrooms and shower rooms should contain a WC and wash-hand basin. Hair washing may be undertaken in the assisted bathroom or assisted shower room by the use of a hand spray sited to serve the basin and the bath. (Hair dryers should be used in the patient's bed room.)

4.35 The alarm call system should be easily identifiable and located so that it can be operated by a patient lying in the bath or on the floor.

4.36 It is necessary to consider whether provision is adequate for any special needs of particular ethnic groups if it is likely that there will be a number of patients from such groups.

4.37 The decor, fixtures and fittings should be in contrasting colours/tones to aid visually impaired people to see where one surface ends and another begins.

Assisted bathroom/WC

4.38 An assisted bathroom should be provided with facilities for a patient who may be ambulant, possibly using walking aids, in a wheelchair or on a mobile hoist, needing the help of staff in bathing.

4.39 A variable height bath can be lowered to allow more independent patients to get in and out themselves with minimal assistance and can be raised to assist staff bathing less able patients. Alternatively a bath with a built-in seat which can be raised, lowered and rotated out of the bath could be provided.

4.40 The bath and the hoists should be compatible.

4.41 Patients may sit at the basin to have their hair shampooed so there needs to be space for a patient to sit at the basin and for staff to manoeuvre around and open the door without knocking into the patient.

4.42 An unbreakable mirror is required placed above the basin.

4.43 Adequate space should be allowed at the side of the toilet to enable staff to assist the patient.

4.44 The basin should be within easy reach of the patient on the toilet in case they are wheelchair users who may wish to wash their hands before transferring back to the wheelchair.

WCs (wheelchair access)

4.45 Disabled people (either patients, visitors or staff) should not have to travel further than others to use a WC.

4.46 Accessible toilet facilities must be reached along fully accessible routes, and be clearly indicated (see data sheets on corridors and signposting in HBN 40 – 'Common activity spaces', Volume 2).

4.47 Toilet facilities for wheelchair users can be provided either on a "unisex" or "integral" basis. A "unisex" facility is approached separately from other sanitary accommodation; it has practical advantages in that it is more easily identified, it permits assistance by a companion of either sex, and it can be used by others

who require more space (such as those with a pushchair, child or guide dog). It is less demanding of space than an "integral" toilet facility, which effectively has to be duplicated in order to achieve the same level of provision for both sexes. (An "integral" facility is contained within each of the separate provisions for male and female users, and thus precludes assistance from a companion of the opposite sex.) The requirements are fully described in HBN 40 – 'Common activity spaces', Volume 2, treatment areas.

4.48 An alarm, reachable from the toilet/basin area and the floor must be fitted. It should be differentiated, both in colour/tone and diameter, from the light pull cord.

4.49 The leading edge of the door should be in the middle of the room, not the corner. The door should open out, but if inward opening is unavoidable, the room depth must be increased to clear the door swing. It must be possible to open the door outwards in an emergency.

4.50 Compliance with Building Regulations 1991 (in England and Wales) is by designing to the minimum standards in Approved Document M. See 3.41 (e).

Patients' day spaces

4.51 Although these rooms (indicated by a * on the headings which follow) are given titles and functions, it is important that, apart from those with an obvious single function, they are used as flexibly as is practicable.

Patients' utility/laundry room*

4.52 A room should be provided primarily for patients to launder small items of personal clothing. Washing, drying and ironing equipment will be needed. The relative merits of commercial, as against domestic, equipment will need to be considered. If this room is to be used for activities of daily living (ADL) assessments domestic equipment would be more appropriate. Care will need to be taken to ensure the risk of injury from irons and other equipment is minimised.

Sitting room/TV lounge*

4.53 A lounge/sitting room should be sited close to the dining room. The room should provide a conducive environment for patients to socialise with each other and with visitors, building up social skills and allowing assessment of their integration. Patients may relax here between their programmed treatment sessions, after meals when taking tea or coffee, in the evenings and at weekends.

4.54 The room should be domestically decorated and comfortably furnished. Fittings and furniture may include:

- a lockable cupboard for the storage of items requiring a degree of security;
- storage for games, books and magazines;
- coffee tables and semi easy and easy chairs;
- a TV and music centre.

Quiet room*

4.55 A quiet room where patients may relax in peace is required on all wards. This will be furnished with a variety of comfortable chairs and will have a TV aerial output. This room may also be used for group meetings. Bookshelves and a stand-alone computer could be provided for patient use.

Smoking lounge*

4.56 This room needs special consideration as it has two basic purposes. Firstly to provide comfortable sitting accommodation for those patients for whom not smoking would be stressful and inhibit other aspects of their care, and secondly to protect other patients from exposure to tobacco smoke.

4.57 Mechanical extract ventilation will be required. The position of windows will affect whether they should be fixed or have restricted opening. Ideally, the opening of a window should enhance the effectiveness of the extract system.

4.58 The windows should be positioned to give good natural light to the room and to allow seated patients the best external view.

4.59 Ash trays suitable for extinguishing cigarettes and containing cigarette ends safely will be required.

4.60 The finishes in this room will need to be easily washable and yet still retain a domestic appearance. Finishes should be resistant to cigarette burns. It would be useful if the pattern in the floor coverings helped to disguise cigarette burn marks.

Group room*

4.61 A room should be provided for ward-based group therapy, remedial therapy and rehabilitation activities. It should accommodate up to 10-12 people sitting in a circle, and to prevent duplication of spaces, the room could be used for activities such as family therapy, counselling, interviews, etc when not being used for group therapy. This room also functions as a lounge or music room at other times.

Dining room*

4.62 If the main meals are to be taken on the ward the dining room should be sized for one sitting only, to allow for the use of this space for other purposes, for example recreation and group meetings. A dining space which is too small will inhibit this. If a central restaurant is used consideration will need to be given to the requirements of patients who for any reason are unable to leave the ward.

4.63 Food may be prepared in, and delivered to the ward from, central catering facilities. Patients will receive food served by the staff at the servery on the ward. In some units, a plated meal or tray service may provide an acceptable alternative.

Ward pantry

4.64 A ward pantry will be required with a servery to the dining room. Project teams will need to consider how patients and visitors can use the ward pantry for making beverages and snacks. Advice may be obtained from the local environmental health officers.

4.65 Depending on the operational policy regarding where crockery is washed, a dishwasher may be required.

Treatment/clean utility room

4.66 A treatment/clean utility room is required which should be near the staff base and be lockable to prevent access by unaccompanied patients or other unauthorised people.

4.67 Secure storage of drugs, including Controlled Drugs, medicines, lotions and a small working stock of clean and sterile supplies is necessary. Space will be needed to assemble and prepare equipment for clinical procedures and to park the medicine trolley. Medicine may be administered from this room and a stable door/counter arrangement may be appropriate dependent on the operational policy.

4.68 Mobile resuscitation equipment, including oxygen and suction, may be stored here. Local arrangements need to ensure this equipment is immediately available when needed.

4.69 In this room patients will receive injections, medications, other nursing procedures and first aid. Cupboards must be lockable and the window designed so that the function and contents of the room are not obvious from the outside. This room can also be used for medical examinations and should have space for an examination couch.

4.70 Clinical hand wash facilities are required.

Dirty utility room

4.71 A dirty utility room will be required although the use of items such as bed-pans, urinals and washing bowls, etc will be limited. Project teams must decide between using disposable bedpans and a bedpan macerator or a bedpan washer/disinfector if it is anticipated that bed pans or similar may be used.

4.72 A limited stock of either disposable or non-disposable items, such as bedpans, urine bottles and vomit bowls will be stored here.

4.73 The dirty utility room is also used for urine testing and holding specimens.

4.74 Flowers needing to be prepared for display or to be disposed of will be dealt with in the dirty utility room.

4.75 Space for holding materials for disposal or reprocessing should be limited because sacks and bags, once full, should be closed and taken to the disposal hold to await collection. The whole hospital policy for disposal will determine the frequency of collection. "Sharps" containers may be held in the dirty utility for collection.

4.76 Mechanical extract ventilation and hand washing facilities are required.

Patients' property store

4.77 A small store may be required for the temporary holding of patients' clothes or belongings which cannot be left with the patient and which are inappropriate to be held in a safe. This could be a sub-section of another store. The room must be lockable.

Doctor's office

4.78 An office is required where medical staff can complete paperwork and make confidential telephone calls. The use of a computer may be required. This office can be used by other disciplines at other times.

Interview room

4.79 An interview room is useful for talking to individual patients when it is not considered appropriate to use their bedrooms. It will also be used for interviewing relatives. Confidential staff discussions can also take place here. This room should be furnished with semi easy chairs and coffee tables. A small writing desk may be required.

Ward office

4.80 The ward office is the administrative and communication centre for the in-patient ward. Activities include the exchange of information orally – both directly and by telephone – and through a computer system, together with the written work associated with patient care, treatment and ward management. Project teams will need to consider local applications of information management and technology. In-patients' health records may be held on a computer database or in hard copy stored in a health records trolley parked in the ward office. The records trolley will be locked to maintain confidentiality. Repeat indicator lights for call systems and the Controlled Drugs cupboard should be located where they will be certain to be seen by a member of staff working in the office. The Controlled Drugs cupboard should be secured and locked at all times.

Staff base

4.81 The need for a staff base will depend on the local philosophy of the unit and the weight given to the fear that it will encourage staff to congregate instead of being with patients.

4.82 The staff base provides a focal point to which all staff can return to record data, issue and receive information and receive verbal and written instructions. It is a place from which staff can observe patients' movements and patients can locate staff, especially at night. It is also a place where patients and staff can pause to sit and have a conversation uninhibited by the sense of enclosure which a room provides.

4.83 Priority should be given to locating a staff base where staff can see and be seen. There should be visual and auditory supervision of the main patient areas and entrance to the ward. The indicator lights from the alarm system and the Controlled Drugs cupboard must be visible from this area.

4.84 The minimum items of furniture and equipment required are a single-pedestal desk, a desk chair, a telephone and a desk light. The telephone should have a bell with variable sound volume and a light as an alternative to sound at night, and the desk light should be able to be dimmed.

4.85 There may be sufficient storage to accommodate a working supply of a variety of stationery, the holding of nursing records and patients' current records, if not in the office, without providing cupboards behind the desk. If patient records are held at the staff base, special care needs to be given to their security and maintenance of confidentiality. Requirements for the storage of stationery should be assessed at individual ward level. Generally need is underestimated and this leads to improvisations which impair working efficiency.

4.86 The design, layout and location should be such that activities which are carried out throughout the 24 hours do not disturb the patients. Consideration should be given to means of minimising the problems of disturbance to patients during the night, if single rooms are not used.

4.87 A transfer of staff/staff calls to an adjacent area in the unit may be needed. (see HBN 48 – 'Telephone services').

Telephone kiosk

4.88 If telephone jack points are not provided in each room or cordless telephones not available then a kiosk capable of being used by a disabled person should be located in or close to the ward.

Cleaners' room

4.89 A room is required as a general base from which domestic service staff provide the immediate day-to-day cleaning services on the wards. It provides storage for cleaning materials and equipment in daily use and facilities for the various activities undertaken. The room and store cupboards within it should be lockable. If the room is to be shared by other parts of the unit, it should be located conveniently for those other parts.

4.90 Provision should be based on one cleaners' room to each ward and one to the unit. The type and number of items of equipment and materials to be stored is dependent upon the finishes used in the accommodation, numbers and deployment of staff and the frequency of cleaning.

4.91 A general cleaners' room should be planned to allow adequate access for equipment and adequate space for storage. Space is also required for manoeuvering cleaning machines, for loading, unloading and parking trolleys, emptying and filling buckets and bowls and routine servicing and cleaning of the equipment. There should be unrestricted access to the sink.

4.92 If other facilities are not provided for staff at their place of work, small security lockers may also be required for storage of small items of personal belongings such as handbags, etc.

4.93 It is important that project teams consult with domestic services managers at an early stage to ensure that the selected equipment is suitable for the finishes proposed and meets the needs of the service to be provided, the operational policy and any special requirements within the unit/area.

4.94 The room should be ventilated and have a separate hand-wash basin with hot and cold running water.

Storage facilities

4.95 Storage facilities will be required for:

- linen;
- general medical and surgical supplies;
- general storage of equipment and miscellaneous items;
- stationery.

4.96 Storage for linen supplies should be either in a linen store or on a linen exchange trolley. The amount of linen storage will depend on the linen supplies policy and the number of patients.

4.97 Bathrooms should not be used for the storage of hoists, weighing chairs, sani-chairs, etc since these detract from the homely appearance of the bathroom and require staff to be frequently moving equipment which can contribute to back pain and strains. Adequate storage space for these items should be provided .

Switchcupboard

4.98 A unit switchcupboard, with lockable doors, housing the main isolators and distribution fuse switchgear should be:

a. accessible directly from a circulation area (access space may be part of the circulation area);

b. sited away from water services;

c. kept locked;

d. lockable with keys on a separate engineering suite of keys.

4.99 The switchcupboard, where possible, should be sited within the department. There should be clear and safe access for maintenance staff and care should be taken to ensure that safety is not compromised during maintenance from passing traffic or the opening of adjacent doors.

Intensive care ward

4.100 For some patients at some time, a degree of physical security is required. It may be necessary to allocate a designated area as the locked ward and for the patients requiring the secure environment to be cared for there temporarily. This ward is referred to as the intensive care ward. Space is essential in this area to offer security to staff and patients alike.

4.101 If the ward can be designed in such a way that a small number of bedrooms are at the end of the ward and this ward positioned adjacent to an open ward, it may be possible by the provision of internal doors to open up a connection between the two wards, isolating the small number of rooms from the rest of the intensive care ward and allowing them to become part of the open ward. This would allow the size of the intensive care ward to change according to demand. The need to provide suitably separate facilities for any women on this ward must be remembered.

4.102 The intensive care ward will be smaller and more highly staffed than the other wards. The bedrooms may have en-suite WC and washbasin. It will be a local decision whether shower facilities will be en-suite or provided separately. This ward will have the same types of rooms and other facilities as the other wards except that as there may be less opportunity for the patients to use the shared activity areas extra provision is needed on the ward. A seclusion room may also be provided.

4.103 A dining room is necessary as patients on this ward will not have access to the central restaurant.

General activities

4.104 A small area is required where patients who cannot leave the ward can take part in creative activities. A sink and drainer are required. Tables and the floor should be easily cleaned. Secure storage is required for tools, materials and partially completed work. Some activity will be part of a therapeutic programme supervised by occupational therapy staff, some activities will be informal and recreational.

4.105 The ability to play games is a particularly valuable facility for patients who cannot leave the ward and a variety of games are required ranging from pool to board games.

4.106 Physical exercise is important so if regular access to a gymnasium is not available facilities will be required on the ward. Simple exercise equipment could either be in a fitness room or included in the games area. Some self conscious patients may find a fitness room less embarrassing.

Secure external space

4.107 Easy access to open space is required but this needs to be supervised and the area needs to be secure. Care needs to be taken to position rockeries or other climbable objects away from fences, walls or roof eaves, etc. If rockeries, are used the stones should be of sufficient size to deter attempts to lift them. Garden furniture needs to be securely fastened down. The height

and features of roof eaves need to be considered to reduce the risk of people climbing on the roof. Fences should be designed to inhibit climbing and can be disguised with appropriate planting. In achieving the desired level of security a local assessment of risk is needed (see HTM 2050 – 'Risk assessment in the NHS estate' for general advice on risk assessment). Account will need to be taken of the degree of supervision to be provided for this area and the time it will take staff to respond to attempts to climb or break through any fence. In determining the type and style of any fence, several factors need to be considered including:

- the height necessary to achieve the desired level of security balanced against the oppressive image created by high fencing. The use of a haha may be appropriate in reducing the apparent height of the fence. The haha may present problems of observation;
- the need for the fence supports and any horizontal rails to be on the non-secure side of the fence;
- the need for small mesh size or other design features to inhibit hand and footholds and so make climbing more difficult;
- the strength and design features required to prevent people from forcing their way through or under the fence;
- the need to avoid any harmful features such as spikes or barbs.

4.108 It is important that the style of any fence is aesthetically acceptable.

4.109 Access to and views of "green" planted areas are very important.

Mother and baby

4.110 There will be no mother and baby facilities on this ward.

Seclusion room

4.111 The Mental Health Act Code of Practice states: "Seclusion is the supervised confinement of a patient alone in a room which may be locked for the protection of others from significant harm"

4.112 Project teams will need to decide if the need for a seclusion room is justified. The provision of single rooms allows patients to "seclude" themselves when they feel the need to escape from the milieu temporarily. The provision of robust/fitted furniture in some rooms could further reduce the demand for seclusion facilities. "Seclusion is a last resort..., its sole aim therefore is to contain severely disturbed behaviour which is likely to cause harm to others." (Mental Health Act Code of Practice)

4.113 Where a seclusion room is required, this should be separate from other patient areas. This room is for the temporary care of a severely disturbed patient. Great care needs to be taken in the design and use of this room to prevent it being regarded as a punishment room. The room should be as calming as possible and full advantage should be taken of any pleasant outside views. If necessary, planting should enhance both the short range and medium range views from the window of this room. The window should have a low sill to allow unobstructed views out of the window by a patient sat on the floor.

4.114 When in use, a member of staff will be based immediately adjacent to this room so a recess or lobby with a chair is required.

4.115 The room should have:

- a robust door which can be opened only by the staff from the outside and which opens outwards;
- a vision panel of toughened glazing suitable for staff observation sited either in the door, or in a wall, which can be screened from the outside when privacy is required, and which gives as much all round vision of the room as possible;
- windows with safety glazing and restricted opening;
- electronically operated blind located between the window secondary glazing and external window operated from outside;
- three light fittings which should all be ceiling mounted, flush and unbreakable with:
  - (i) the main light, controlled by a switch outside the room;
  - (ii) a separate night light to give a pool of light by the door, with a switch outside the room;
  - (iii) an overbed light. The local bed head switch should be capable of being isolated by means of an over-ride switch mounted outside the room);
- a tamper-proof smoke detector;
- mechanical ventilation and possibly air-conditioning;
- heating which cannot be tampered with, controlled from outside the room;
- sound containment to a reasonable level;
- en-suite or adjacent WC, wash and shower facilities. If en-suite facilities are provided, consideration should be given to the use of a mechanism for controlling access. WC facilities should allow space for the patient and two staff, and have robust fitments.

Admission suite (optional)

4.116 This will have its own entrance which is kept locked when not in use. The suite will be positioned close to the intensive care ward but will serve all wards. When patients are admitted who are well known to the service or who have had a pre-admission assessment prior to arrival at the unit, they will be admitted directly to the appropriate ward during the day. If patients are not well known to the service and it has not been feasible to assess the patient prior to accepting the referral, the patient could be received in the admission suite. Similarly patients known to be disturbed or arriving at night could do so via this facility.

Reception/waiting area

4.117 This is a small informal area where the patient and escorts can sit and be greeted by the receiving staff. The reception desk will be small and informal.

WC (Wheelchair access)

4.118 A WC is required for the use of the patient, escorts or staff. The door needs to be capable of being opened from outside and of opening outwards in an emergency.

Interview/assessment room

4.119 This room needs to have speech privacy so that conversations are not overheard in the waiting area. It is also important that telephone conversations are not overheard outside the room. The room requires a desk and chair. Computer facilities may be required. A choice of upright and easy chairs should be provided. A bay window with seating can provide flexibility for additional relatives or escorts.

Examination/treatment

4.120 The examination room needs to be equipped with an examination couch to allow the patient to have a full physical examination if necessary. This may include taking blood samples.

Shared activity areas

Gymnasium/fitness room

4.121 This is a communal area shared by all the wards to provide off-the-ward activities. It is useful to locate it to allow direct controlled access for patients from the intensive care ward.

4.122 It will be for local decision whether to provide a gymnasium or a fitness room. A gymnasium is an expensive resource, both in equipment, and room space, and the need for specialist personnel to supervise it. Whether it is an appropriate service provision will largely depend on the level of anticipated use.

4.123 Physical exercise is important both as recreation and because of the positive link between physical and mental health. This room may be used for special exercise by some patients under the supervision of physiotherapy staff. This could be individual or group activities and space is required for exercise mats.

4.124 The layout and equipping of this room will be governed very largely by the operational policies especially those relating to supervision within the area. Although unit staff could supervise patients using exercise bicycles, rowing machines, exercise mats or similar, specialist skills will be required to supervise the use of weights, multi-gyms or wall bars safely. Any staff who are responsible for using or supervising the use of gymnasium equipment must be properly trained.

WCs, Changing room/showers – patients

4.125 Changing and shower facilities need to be close to the exercise facility. Operational policies will need to include access and supervision. There needs to be easy access to WCs including wheelchair access.

Physiotherapists' office

4.126 An office is required for the completion of paperwork, discussions with other staff, and interviews with patients. A couch is required to allow the assessment of individual patients (this may be in a separate room). The office could also be used by other disciplines and should be positioned close to the relevant activity areas.

Occupational therapists' office

4.127 This office is required for paperwork, discussions with staff, and interviews with patients. The office should be positioned to allow convenient observation and supervision of therapeutic activity within the activity areas.

4.128 Alternatively physiotherapists and occupational therapists could share a larger multi-disciplinary office. Whatever configuration of office space is chosen, any under utilisation could be used by medical or other staff.

Therapy room (art and crafts)

4.129 This room needs to be equipped for a range of activities including painting and pottery. If a kiln is

provided, this needs to be positioned in a separate secure area with controlled access to reduce the risk of accidents. Consideration needs to be given to when kiln-firing occurs and the heat and fumes given off. Extract ventilation is vital so external wall access needs to be ensured.

4.130 The full range of activities will be decided locally and the operational policies will need to reflect the care required regarding the supervision and storage of some tools and materials.

4.131 Sink facilities, easy to clean flooring and lockable cupboards are required.

Activities of daily living (ADL) kitchen

4.132 The size and ambiance should be that of a 'domestic' kitchen capable of accommodating a small group with equipment similar to that likely to be in patients' homes. Both gas and electric cookers should be available but the cookers should not be in corners, a microwave oven may be required. All the kitchen cupboards and the refrigerator should be lockable. There should be space for patients to work with the staff and for a proportion of them to sit down and eat.

4.133 A separate wash hand basin is required.

Lounge with beverage area

4.134 This could be regarded as the informal heart of the activity area. This is an informal meeting area where patients can sit, talk or read. It should be positioned to give good views of general activity in the area and, if possible, to have pleasant outside views. Patients (and visitors) should be able to obtain beverages either from a "coffee shop" style counter or from vending machines. There should be a small area with tables and upright chairs, the remainder being furnished with easy chairs and coffee tables.

Central dining room/restaurant with servery

4.135 If the option of a central dining room is used, the local operational policy will influence its size. If a staggering of meal times occurs, the space requirements will be significantly less than if all patients eat at the same time. The quality of the decor and furnishings is a major factor in creating a pleasant relaxed environment where patients can enjoy their meals.

4.136 The servery will be equipped for the catering system in use. There may be a need for regeneration ovens. It will be necessary to ensure that meals are held and served at the correct temperature. Refrigerated storage will be required. Storage will also be needed for some dry provisions, crockery and cutlery. Handwashing facilities are essential. A dishwasher will be required unless the operational policy is for dishes to be washed elsewhere as part of a central dishwash scheme.

Cleaners' room

4.137 A cleaners' room similar to those on the wards may be required unless this service is provided from the main cleaners' room.

Switchcupboard

4.138 A switchcupboard is required similar to those on the other wards.

Enclosed outside area

4.139 Supervised access is needed to outside areas both for sporting activities and for general relaxation.

4.140 If practicable an area where patients can garden should be provided. The type of gardening undertaken needs to show short term results as patients will otherwise not sense the achievement. If gardening is undertaken, secure storage for tools and materials is required to comply with Health & Safety and COSHH requirements.

4.141 A hard court area for some games would be useful.

Administration

4.142 Most mental health services will be delivered in the community and the working bases for most staff can be dispersed throughout the community served. Where the aim is to provide a decentralised locality service, the operational policies and practices need to ensure that the location of the administrative base on the acute site does not create a "centralised pull". The administrative and general support facilities may contain:

Offices

4.143 If not provided elsewhere offices will be required for:

- community psychiatric nurses;
- social workers;
- consultants;
- other medical staff;
- psychologists;
- physiotherapists;
- occupational therapists;

- secretaries;
- other professions allied with medicine;
- managers including nurse managers.

Waiting area

4.144 Depending on the location of the administrative suite a small waiting area may be required if it is not appropriate to use the waiting area at the main entrance/reception.

General office

4.145 A general administrative office is required and this could conveniently be situated close to the reception. The safe in the general office can be used for the safe custody of patients' valuables. The general office can also function as a patients' bank if a suitable hatch is provided. Care needs to be taken to ensure that no problems are caused by the existence of a queue of patients waiting for the bank. Special consideration also needs to be given to security.

Records store

4.146 There needs to be secure storage for mental health records. These are usually kept separate from general hospital patients' records although they may be combined depending on agreed operational policies. The size of the records store required will depend on the method of storage and the number of records to be kept which in turn is dependent on the number of patients in contact with the unit and the policies on the storage and retention of records. This HBN assumes that the unit holds current records and that others are stored in the records library of the hospital or with other community records elsewhere. Current in-patient records will be held on the relevant wards.

Furniture store

4.147 The furniture store will hold beds, chairs, cots and other bulky items of furniture when they are not in use. If the unit is on a general hospital site this facility may already exist and be available for use by the unit.

Staff changing facilities (could be provided within each ward)

4.148 Space is required for changing, clothes storage, showers and sanitary facilities. Estimates of changing space and locker provision should take into account the numbers of full-time and part-time nursing staff and also the locker allocation policy (see HBN 41 – 'Accommodation for staff changing and storage of uniforms'). Provision should also be made for male as well as female staff. Steps should be taken to ensure the security of personal belongings left in the staff changing areas.

Staff rest room/pantry (could be provided in each ward and department)

4.149 A rest room is required where staff can relax and take beverages and snacks. The room should be located away from, but within easy access to, patient areas and have good staff communication links with the rest of the unit. The rest room should have windows with a pleasant outlook, be comfortably furnished and have a telephone.

4.150 Facilities are required for making beverages and snacks, and for washing-up. Facilities provided may include a sink/drainer, refrigerator, microwave oven, toaster, drinks machine and separate storage space for crockery and dry goods. A separate hand wash basin will be required. The pantry may be provided as a separate space adjacent to the staff rest room or as an integral part.

Staff WC including wheelchair access

4.151 It is expected that more people with disabilities will be employed within the health service and suitable provision must be made for their needs. To avoid unnecessary duplication of facilities everyone could use the facilities designed to be more accessible for disabled people.

Interview room

4.152 An interview room is required for various, mainly staff, interviews. This room needs to be available to all disciplines.

Seminar/library

4.153 This room needs to be available for larger group meetings as well as seminars. The use as a library is mainly for the storage of books available for loan. It would be available for private study if there were no meetings being held. It would be for local decision whether to separate these functions by providing separate facilities. If the unit is sharing a site this facility may already exist and depending on its utilisation may be available for use.

Main cleaners' room

4.154 Heavy domestic equipment, such as floor scrubbers, which are used on more than one ward are held here. This room may also act as a sub store for

cleaning materials as well as being a shared cleaners' room for any areas not having a dedicated cleaners' room.

Switchcupboard

4.155 A switchcupboard is required similar to that on the wards.

Electro-convulsive therapy (ECT) suite

4.156 The ECT Handbook (Royal College of Psychiatrists) recommends that "an area designated as a centre for ECT should exist within each general psychiatric facility." Advice from an anaesthetist should be taken when designing an ECT suite.

4.157 The ECT suite will serve both the adult acute and the elderly acute mental health units.

4.158 If the projected use of ECT is insufficient to justify an ECT suite special consideration will need to be given to those patients who do require ECT.

Reception/waiting room

4.159 This should be large enough to accommodate up to ten people. It should be pleasing and restful in decor and furnished with easy chairs for patients and escorts. Distractions should be provided such as a fish tank and recent magazines. Where possible the outside window should be positioned to give the best external view;

WC (wheelchair access)

4.160 WCs with disabled access should be adjacent to the waiting room as all patients will need to have empty bladders prior to treatment.

Treatment room

4.161 This room needs to have good soundproofing from the waiting area. Patients waiting should not have a full view of the treatment room when the door is opened. This room also functions as a clean utility room where equipment is prepared and drugs are drawn up. In the treatment room, the patient removes or loosens tight clothing, takes off shoes and gets onto a trolley bed. The trolley should have a low level tray for patients' personal effects. The treatment room is a clinical activity area but decor should be used which will help reduce a patient's anxiety. Colour-corrected lighting of high- and low-intensity is required. Patterned glass in the window is preferable to curtains. There must be provision for positive pressure respiration with oxygen, suction and emergency resuscitation. There should be a sink with hot and cold water.

4.162 Double doors are required between the treatment room and the recovery room.

Primary recovery area

4.163 The patient will be moved from the treatment room to the recovery area on a trolley. Provision should be made for up to six trolleys with adequate space to manoeuvre in an emergency. The actual number of trolleys will depend on local usage of ECT. A system is needed to call the anaesthetist from the treatment room in the event of an emergency.

Post-ECT lounge

4.164 When patients are re-orientated and able to walk they will be taken to the post-ECT lounge where they may sit and rest before leaving the suite. This room needs to be large enough to accommodate all patients for that session.

Office

4.165 This is required for the administration of the unit and for confidential discussion and telephone conversations.

4.166 When not required for ECT use, these rooms, especially the waiting area, post-ECT lounge and the office should be considered for other use. This office could provide the base for an advocacy scheme or be available for use by other agencies such as the Citizens Advice Bureau. If this is not appropriate because of a negative attitude to these rooms by some patients then other methods for utilising these rooms need to be considered and other facilities found for these agencies.

Switchcupboard

4.167 A switchcupboard is required similar to those on the wards.

Out-patients

4.168 Most out-patients will be seen in the community or in the main out patients department of the general hospital. If it is decided to provide a separate out patients department for the adult acute mental health services this volume assumes that this will also serve the needs of the services for the elderly people with mental illness. The out-patients department can share a reception with the main in-patients unit, but will have its own small foyer.

4.169 The out-patients suite should be adequate for the planned workload of psychiatrists, clinical psychologists and other staff who will see patients. All rooms should be furnished and equipped in domestic style, and clinical equipment, for example examination couches, should be discreetly positioned.

Waiting space

4.170 Seating is required for the anticipated number of patients and escorts, this should be informal. An effective appointments system should reduce the need for waiting space.

Staff base

4.171 At a minimum a desk and a chair will be required. A telephone point will be needed and a computer may be used.

Consulting rooms

4.172 These are required for psychiatrists and clinical psychologists, some or all of these rooms will be equipped with physical examination facilities. The number necessary should be determined locally.

Consulting/interview room(s)

4.173 These are needed by a number of disciplines, for example community psychiatric nurses and social workers. The number necessary should be determined locally.

Treatment/clean utility room

4.174 This may be needed for patients requiring injections or treatment or dressings. It may not be necessary to provide this space if the out-patients suite is related to a ward or a day hospital which includes this facility. Several drugs used in the treatment of mental illness require regular monitoring of levels in the blood so venepuncture is now carried out more frequently.

Dirty utility room

4.175 A small dirty utility room is required for disposal of liquid and solid waste, with facilities for testing urine. Where feasible, this could be shared with a ward or day hospital.

WCs

4.176 At least two WCs are required: one assisted WC for patients, in which specimens for urine analysis can be obtained, and one staff WC.

Store

4.177 A small general purpose lockable store is required.

Cleaners' room

4.178 Depending on the design of the unit this will be provided or it may be practicable to share this facility with another area.

Switchcupboard

4.179 A switchcupboard is required similar to those on the wards.

5.0 Elderly people with acute mental illness – specific functional and design requirements

Introduction

5.1 This chapter provides design guidance based on the service considerations outlined in Chapter 2 and aims to help planners in assembling their requirements for the unit. It seeks to respond to a range of planning requirements.

5.2 Most of the functional spaces will be very similar, if not identical, to the comparable spaces for adults with mental illness described in Chapter 4. This chapter only addresses the differences needed to meet the special accommodation needs of older people (mainly arising from the increased frailty associated with ageing).

General considerations

5.3 Decisions on the pattern of services purchased for elderly people with mental illness will be made locally by individual health authorities. The level of provision will need to be determined on the basis of the local needs analysis and national priorities as outlined in 'Key Area Handbook – Mental illness' 2nd edition.

5.4 It is assumed in this HBN that the service will provide assessment and/or short term treatment facilities for elderly people with either functional mental illness or dementia.

5.5 This unit will probably be at a general hospital and located close to the Department of Geriatric Medicine with ready access to the diagnostic services of the hospital. This functional relationship is more important than the association with the adult acute mental health unit. The unit should be away from the main hospital buildings, on the ground floor with its own surrounding usable space. Ideally, doors to the accommodation should not face, or be near, a major traffic route either outside or inside the hospital complex.

5.6 The location should ensure:

a. ease of access for people with limited mobility arriving by ambulance or car, and for visitors, etc;

b. good communications between the day hospital and the ward, the other main hospital adult services and the mental illness unit, where this is on a general hospital site;

c. in-patients can remain in touch with the world outside the ward;

d. patients can make use of the hospital grounds for exercise and leisure;

e. rapid evacuation in the event of fire.

5.7 Accommodation for longer term and continuing residential care is not described in this HBN as this should be sited at appropriate locations within the community.

5.8 There needs to be a close relationship with both the general medical practitioner service and the specialist service to the elderly. Consultants in geriatric medicine may be involved in both the assessment and future care of these patients. Access to the services of physiotherapists, occupational therapists, speech and language therapists, dietitians, dentists, opticians, chiropodists and hearing aid technicians will also be required.

5.9 The comprehensive provision for elderly people with mental illness should consist of a range of services in the community supported by the unit at the general hospital which will provide for assessment and short-term treatment only.

Description of accommodation

5.10 Accommodation may comprise:

a. day hospital for assessment, short term treatment and rehabilitation;

b. in-patient ward for assessment and short-term treatment;

c. out-patients suite, shared with the adult acute services;

d. administration suite which may be within the elderly acute area or shared with the adult acute services (if the administrative base for the service is not at one of the community locations).

(No ECT is required if patients needing this treatment use the ECT suite in the adult mental illness unit.)

Day hospital

5.11 The day hospital is for day patients requiring assessment, short term treatment and rehabilitation without the need for admission. The size of this day

hospital will be decided locally by agreement between the service providers and the main purchasing health authorities.

5.12 The day hospital will have its own separate entrance.

5.13 Many patients using the day hospital will be dependent on ambulance or "hospital car" transport. Special consideration therefore needs to be given to the provision of "dropping off" space close to the entrance to the day hospital. Patients will need to have some protection from inclement weather so a canopy should be provided.

5.14 In the accommodation described below the following considerations will need to be taken into account:

a. many patients will be frail, some with physical disabilities necessitating the use of walking aids or wheelchairs;

b. the activities to be undertaken in the day hospital will need to be identified accurately as they will differ from those needed for adult patients – for example, the volume of physiotherapy needed;

c. sitting and dining spaces can be combined in a single space in small day hospitals. The quiet room however should be retained as a separate space.

Functional spaces

Reception/office

5.15 This is the focal point for the administration of the unit and its position by the entrance facilitates the greeting of each patient on arrival. It should overlook the entrance lobby and the patients cloakroom area. The reception office will hold all the current records of patients and needs to be accessible to all staff. There may be informal seating areas close by which allow general conversation. Some patients may sit in this area while awaiting transport.

Staff base

5.16 Project teams will need to decide if a staff base is needed in addition to the various offices. If provided, only a small staff base would be required.

Office (multi-disciplinary)

5.17 A further office is required for confidential discussions or telephone calls as the reception office may not be able to offer the required degree of speech privacy. This office will be available for any staff who need to use office facilities. The use of a computer may be required.

Doctor's office

5.18 If work patterns or volume make it impractical for the doctors to use the multidisciplinary office a doctors office will be required.

Consulting/interview

5.19 This is required to allow individual assessment and progress checks of patients. The room needs speech privacy. X-Ray viewing facilities may be required. This room should be situated close to the examination/ treatment room. This room may be used by all disciplines.

Examination/treatment

5.20 This room is used for full physical examination of patients where that is warranted as part of the assessment. Patient weighing and measuring facilities are required. Blood samples will be collected in this room.

Patients' cloakroom

5.21 A patients' cloakroom will be required for the storage of outdoor clothing. This needs to be close to the entrance, have easy access to WC facilities and be observed from the reception.

Staff cloakroom

5.22 This should be situated adjacent to the staff office and is required so that staff may hang outdoor clothing and keep valuables safely. This should be adjacent to the staff WC.

Staff WC

5.23 This needs to be accessible by disabled staff.

Sitting area

5.24 This will be adjacent to the dining area as occasionally the two areas may be used for social activities as part of a rehabilitation programme. The sitting area should be attractively decorated and furnished in a homely style. The area will be used for some group meetings and patients will relax here between their programmed sessions, after meals and when drinking beverages. Where possible, this should have pleasant external views. This area needs to be large enough to encourage spaced clustering of seating.

Dining area

5.25 This, along with the main sitting area, will form the main focal point for day activities. It should be sited alongside the sitting area. The dining area should be sufficiently large to allow all the patients to eat at one sitting. This allows the area to be used for other functions at other times and prevents potential problems with trying to keep meals warm over an extended period. Although it is not expected that many in-patients will use this facility, an estimate of the number likely to do so on any day needs to be made to allow the calculation of space requirements.

Pantry

5.26 This is required for the preparation of beverages to be consumed in the dining area, sitting area or elsewhere. Storage is required for dry goods, crockery and cutlery. A refrigerator is required for milk, butter and any other perishable food required for snacks. Dishwashing facilities are required, and handwashing facilities are needed. The pantry needs to be large enough for two people to work at the same time. A serving hatch to the dining area may be an advantage. Trolley parking space for the catering trolleys is required

WCs (wheelchair access)

5.27 Patients' WCs should be suitable for the needs of elderly and disabled people. WCs must be clearly labelled. No patient should have to walk more than 12m from any space to a WC. One WC should be integrated with, or immediately adjacent to, the area used for physiotherapy. WC facilities are also needed by the entrance for patients who may have been travelling for some time.

Quiet room

5.28 A small room where patients can relax, or meditate, in peace and quiet is required. It should have a variety of comfortable chairs. This room can also be used for group therapy with small groups and when not in use for other purposes, could also be used for interviews with individual patients. There may be benefit in decorating this room with pictures and other memorabilia to help with active reminiscence work.

Activity areas – multi-purpose

5.29 These need to provide for a variety of activities which require a range of social interaction, intellectual ability, manipulative skills and physical exercise. These activities will be similar to those described in the shared activity areas of the adult acute unit but due regard needs to be taken of the age and increasing frailty of some of the patients.

5.30 There should be sufficient space for group activities such as music and movement, throwing and catching balls, and relaxation classes which require the use of exercise mats. Some fixed equipment will be needed, for example a set of wall bars and either fixed parallel walking bars or sockets for the insertion of moveable ones. Access to stairs is also required.

5.31 Greater emphasis may need be given to the full range of ADL activities.

Beauty/hairdressing room

5.32 Facial care, manicure and hairdressing can be undertaken by either a hairdresser, a member of staff or by patients themselves. This room is optional.

ADL kitchen

5.33 This is as described in paragraph 4.132. This room should be fitted with appropriate aids to assist people with visual problems, arthritis or mobility difficulties.

Bathroom (assisted)

5.34 This is required for assessment purposes and for some treatments. (See HBN 40 – 'Common activity spaces', Volume 2: 'Treatment areas') It is not usually convenient to take a patient to a ward even if one is geographically close. The design of this room needs to facilitate the use of a hoist.

Support areas

Clean utility

5.35 It is for local decision whether a separate clean utility room is required or if the level and type of activity in the treatment room is such that the clean utility function could be combined in the treatment room.

Dirty utility room

5.36 Only a small dirty utility room is required. Urine testing will be carried out but it is not anticipated that bedpans or urinals will be used so unless local policy determines otherwise, bedpan disposal units or washers will not be required.

Disposal hold

5.37 A disposal hold for the holding of materials for disposal or reprocessing is required and should be located close to an exit from the unit to allow easy collection. This hold should be locked.

Occupational therapy store

5.38 Storage is required for tools, equipment, materials and partially completed work.

General store

5.39 A range of storage is required for general stores and equipment as well as for medical and surgical supplies.

Cleaners' room

5.40 This is the same as required on the wards.

Switchcupboard

5.41 This is the same as required on the wards.

In-patient ward

5.42 While many elderly people with acute mental illness are treated at home with the support of the day hospital, some will need admission for detailed assessment of their physical and mental states and for short-term treatment. One self-contained ward providing for 20 patients should normally be adequate. This ward should be located close to the day hospital which some in-patients may use during the day or in the evenings.

5.43 Unless there is sufficient demand to warrant more than one ward, the ward will cater for elderly patients with organic or functional mental illness. Grouping single bedrooms in small clusters makes it easier to support the different groups of patients and maintain separate facilities for women. The provision of several small day and activity areas on the ward also makes the mix of patients more manageable.

5.44 The design of the ward should ensure that patients with dementia, who are constantly walking about, do not get lost. Access to an enclosed outside space is particularly useful.

5.45 The ward will need space for occupational therapy and physiotherapy activities including the use of parallel bars and a set of small stairs. Dressing practice and assessment may occur in the patients' bedrooms. The assisted bathroom and shower will be used for assessment. Patients will go to the day hospital to use the ADL kitchen.

Bedrooms

5.46 Single rooms, with en-suite WC and washing facilities are required. The wash basin will need to be at a height suitable for a person sitting on a chair. The en-suite facilities will need to have wheelchair access.

5.47 The bedroom may be furnished with a variable height bed and general type bed head services but piped oxygen and suction are not required. An emergency call system is required. The room will also require a bedside locker, a chair of appropriate height and storage for clothes.

Assisted shower

5.48 An assisted shower is required. (See HBN 40, volume 2.)

Assisted bathrooms

5.49 Two assisted baths are required as it appears these are more popular than showers with this age group. The bathrooms must permit the use of a hoist. Hair washing facilities may be provided in these rooms.

Domestic bathroom

5.50 This is required for assessment purposes and for use by patients not requiring assistance.

WCs (wheelchair access)

5.51 Extra WCs are needed on the ward to ensure that patients do not need to walk more than 12 metres to a WC to which they have access. These should have disabled access.

Patients' day spaces

5.52 These are to be used flexibly as the need determines. A greater number of smaller rooms allows patients greater choice of company.

5.53 The requirements for:

a. sitting room/TV lounge;

b. quiet room; and

c. smoking room,

are similar to those required on the adult acute wards, though a greater variety of chairs will be needed.

5.54 General rooms will be required, one of which may be used by people listening to music which may be played loudly. Special attention should be given to careful furnishing with a view to reducing noise. The siting of this room in relation to quiet areas of the ward needs to be considered.

5.55 The dining and pantry requirements are similar to those for the acute ward. The provision of two smaller dining areas is a local option in lieu of one large dining room.

Arts and crafts area

5.56 A small area is required for arts and craft facilities both for assessment and recreational purposes. Storage for materials, etc is required.

Physiotherapy space

5.57 A space is required on the ward to ensure there is enough clear general space for walking practice. Access to stairs is required. If patients require more intensive physiotherapy, they will be taken either to the day hospital or the main physiotherapy department in the general hospital.

Dirty utility room

5.58 A bedpan washer-disinfector or disposal unit may be required, although the provision of en-suite WC facilities should greatly reduce demand. A local assessment of need will be required.

Storage

5.59 The storage requirements are similar to the adult acute ward except that much greater provision will be needed for bulky items such as walking frames, wheelchairs, pressure-reducing mattresses, etc. Greater use will be made of the furniture store because of the variety of chair sizes which will be needed by individual patients. Consideration needs to be given to the storage of broken or soiled furniture awaiting repair or cleaning.

Staff rest/beverages room

5.60 Depending on the location of other staff rest facilities, it may be necessary to provide a rest room with beverage making facilities in the ward.

Staff WC

5.61 This should be close to the staff rest room.

Other spaces

5.62 The requirements for:

a. patient utility/laundry room;

b. interview room;

c. doctor's office;

d. staff base;

e. ward office;

f. treatment/clean utility room;

g. disposal hold;

h. cleaners room;

j. switchcupboard

are the same as for the adult acute ward.

Enclosed outside area

5.63 Easy access to an enclosed outside area is of great value to the elderly. The area should provide various points of interest. A level, meandering path allows patients to wander around in safety. Seats should be placed at intervals. Walls and fences can be disguised by careful planting.

Out-patients suite

5.64 If the out-patients services are not to be held in the main hospital, out-patients department or elsewhere in the community, then the out-patient service for the elderly normally should utilise the accommodation provided for mentally ill adults even if minor design modifications are needed to address the problems caused by physical disability and to ensure easy access to WCs.

Administration suite

5.65 Where a separate suite is provided, the accommodation requirements will be similar to those for the unit for adult mentally ill people.

6.0 Other general functional and design requirements

Introduction

6.1 This chapter contains additional guidance on aspects of function and design which are common to all health buildings.

Statutory and other requirements, including Crown immunities

6.2 The guidance takes account, as far as possible, of all statutory and other requirements in force at the time of publication. However, health authorities and trusts are reminded of their responsibility for ensuring compliance with all relevant statutes, regulations, codes and standards.

6.3 With the general removal of Crown immunity, building and planning law are legally enforceable on the NHS. Guidance on the removal of Crown immunity is given in Circular HN(90)27/LASSL (90)15 (in Wales, WHC(91)4), in respect of a wide range of legislation. **In Northern Ireland advice on removal of Crown Immunity is contained in ESD letter reference 15781/92, issued 20 December 1991, in compliance with Article 7 of the HPSS (Northern Ireland) Order 1991.**

Building components

6.4 The Building Components Database consists of a series of Health Technical Memoranda (HTMs) 5470 which provide specification and design guidance on building components for health buildings which are not adequately covered by current British Standards. No firms or products are listed. The numbers and titles of the various HTMs in the series are listed in the 'References' section at the end of this Note.

Upgrading or adaptations of existing buildings

6.5 The standards set out in this guidance essentially apply to the provision of accommodation by new building. However, the principles are equally valid and should be applied, so far as is reasonably practicable, when existing accommodation is being upgraded or new accommodation is being constructed within an existing building which may previously have been used for other purposes. Compromises may have to be made between Health Building Note (HBN) standards and what is possible.

6.6 Before a decision is made to carry out an upgrading project, consideration must be given to the long-term strategy for the service, the space required for the new service, and the size of the existing building. Regard must also be paid to the orientation and aspect of the building, whether or not key HBN requirements can be met: for example, the need for accommodation with ground level access, and the adequacy and location of all necessary support services.

6.7 If a prima facie case for upgrading emerges, the functional and physical condition of the existing building should be thoroughly examined. The check of physical and other aspects of existing buildings should include:

- availability of space for alterations and additions;
- type of construction;
- insulation;
- age of the buildings and condition of building fabric – for example, external and internal walls, floors, roofs, doors and windows – which may be determined by a condition survey;
- life expectancy and adequacy of engineering services, ease of access and facility for installation of new wiring, pipework and ducts, if required;
- the height of ceilings. High ceilings do not necessarily call for the installation of false ceilings, which are costly and often impair natural ventilation;
- changes of floor levels, to obviate any hazards to disabled people;
- fire precautions;
- physical constraints to adaptation, such as load-bearing walls and columns.

6.8 When comparing the cost of upgrading or adapting an existing building to that of constructing a new building, due allowance, in addition to the building cost, must be made for the costs of relocating people, demolition, salvage, disruption of services in a phased project, and the temporary effects on running costs of any

impaired functioning of areas of the building affected by the upgrading works.

6.9 The cost of upgrading work should conform to the guidelines which were originally promulgated in the Department's WKO letter (81) 4, and more recently referred to in Volume 4 of NHS Estates "Quarterly Briefing" Those guidelines take into consideration the estimated life of the existing building and the difference in cost between upgrading a building and constructing a new building. **The WKO letter is not applicable in Northern Ireland.**

Smoking

6.10 NHSME circular HSG(92)41, entitled 'Towards smoke-free NHS premises', promulgates Government policy set out in the 'Health of the Nation' White Paper, and required NHS authorities and provider units to implement policies so that the NHS became virtually smoke-free by 31st May 1993. The circular advises that a limited number of separate smoking rooms should be provided, where necessary, for staff and for patients who cannot stop smoking. **Northern Ireland smoking policy document Circular HSS (OPI) 2/93 "Towards Smoke-Free Premises in the Health and Social Services" issued 10 March 1993.**

6.11 No provision has been made in this Note for staff who wish to smoke.

7.0 Engineering services

Activity data

7.1 Environmental and engineering technical data and equipment details are described in the Activity Data Sheets which are listed in Chapter 9. They should be referred to for space temperatures, lighting levels, outlets for power, telephones, equipment details, etc.

Safety

7.2 The Health and Safety at Work etc Act 1974, as partly amended by the Consumer Protection Act 1987, together with the Workplace Regulations and the Work Equipment Regulations, imposes statutory duties on employers and designers to minimise – so far as reasonably practicable – any risks arising from the use, cleaning or maintenance of engineering systems. One of the requirements of this legislation is to ensure, so far as is reasonably practicable, that design and construction is such that articles and equipment will be safe and without risks to health at all times when it is being set, used, cleaned or maintained by a person at work.

Fire safety

7.3 The project team should familiarise themselves with Firecode which contains the Department's policy and technical guidance on fire safety in hospitals and other NHS premises. **(Northern Ireland FIRECODE Policy and Principles**.) In addition, the Fire Practice Note series provides guidance on specialist aspects of fire precautions. HTM 81 'Fire precautions in new hospitals' provides guidance on the design of new hospital premises and should be used when determining the standard of fire precautions required. The specialised nature of accommodation provided for acute mental illness may mean that some of the guidance in HTM 81 will not be appropriate. Where this is the case, NHS clients, designers, building control and fire authorities should exercise a degree of judgment based on a full understanding of the problem and taking into account such things as:

- the type of care being provided;
- the mobility of the patients;
- staffing level;
- the age of the patients;
- the size of the premises.

Noise

7.4 Excessive noise and vibration from engineering services, whether generated internally or externally and transmitted to individual areas, or noise from other sources, for example, speech which can be transmitted by the ventilation system, can adversely affect the operational efficiency of the department and cause discomfort to patients and staff. The limits and means of control advocated in HTM 2045 – 'Acoustics' (in preparation) should provide an acceptable acoustic environment.

7.5 In addition to designing for control of noise levels, there may also be a need to ensure speech privacy, so that confidential conversations are unintelligible in adjoining rooms or spaces. This will be important in consulting/examination rooms, particularly where these are located adjacent to waiting areas.

Space for plant and services

7.6 Space for plant and services should provide:

a. easy and safe means of access, protected as far as possible from unauthorised entry;

b. for frequent inspection and maintenance. Sufficient access panels should be provided for this purpose;

c. for eventual removal and replacement of plant.

7.7 Recommended spatial requirements for mechanical, electrical and public health engineering services are contained in HTM 2023 – 'Accommodation for plant and services'. Reference is also made in HTM 2023 to the Construction (Design and Management) Regulations.

7.8 The distribution of mechanical and electrical services to final points of use should, wherever possible, be concealed in walls and above ceilings. Heat emitters should be contained within a 200 mm wide perimeter zone under window sills and critical dimensions should be taken from the boundary of this zone.

7.9 The 200 mm zone includes the floor area occupied by minor vertical engineering ducts and is included in the building circulation allowance.

7.10 Services contained in the space above the false ceiling, with the exception of drainage, should be confined to those required for the department.

7.11 Provision of satisfactory access should be provided to pipework, fittings and valves concealed in partitions, walls and ceiling.

7.12 Devices for control and safe isolation of engineering services should be:

a. located in circulation rather than working areas;

b. protected against unauthorised operation;

c. clearly visible and accessible, where intended for operation by the department's staff.

Engineering commissioning

7.13 The engineering services should be commissioned in accordance with the validation and verification methods identified in the latest HTMs. Engineering services for which a specific HTM is not currently available should be commissioned in accordance with 'Engineering commissioning' published by the Institute of Hospital Engineering **now called 'The Institute of Healthcare Engineering and Estate Management' (IHEEM)**. Flow measurement and proportional balancing of air and water systems require adequate test facilities to be incorporated at the design stage. Guidance is also contained in a series of commissioning codes published by the Chartered Institute of Building Services Engineers.

Maximum demands

7.14 The estimated maximum demand and storage requirement, where appropriate, for each engineering service, will need to be assessed individually to take account of the size, shape, geographical location, operational policies and intensity of use of the unit. NHS Estates may provide estimates of the maximum demand and storage requirements for a specific project if required by the project team.

MECHANICAL SERVICES

Heating

7.15 When planning the heating system for an acute mental health unit the safety requirement of the users is paramount.

7.16 If radiators are used in space heating, radiators of the low surface temperature type should be utilised. Surface temperatures should not exceed 43°C. Exposed hot water pipe work, accessible to touch, should be insulated. Further guidance is contained in the NHS Estates publication Health Guidance Note – "Safe" hot water and surface temperatures'.

7.17 If radiators are used there should be adequate space underneath to allow cleaning machinery to be used. Where a radiator is located on an external wall, back insulation should be provided to reduce the rate of heat transmission through the building fabric. It is important that any fixing arrangements are secure and tamper-proof whilst maintaining the requirements for operational maintenance.

7.18 If radiators are utilised, they should be selected carefully to reduce the problems of patients using the space between the emitter and structure or within the heat emitter casing for the 'storage' of debris etc.

7.19 Radiators may also be used to offset building fabric heat loss in mechanically ventilated spaces.

7.20 A risk assessment should be made of each planned project but in principle all pipework within patient areas should be concealed to prevent the patient inflicting injury upon themselves or others.

7.21 Consideration should be given to the use of underfloor heating which will potentially provide a comfortable environment, a safe method of heating and potential to increase energy efficiency. If underfloor heating is utilised, care should be given to the floor finishes and installed strictly to manufacturer requirements. The location of the manifolds together with pipe distribution to the various zones should be carefully planned to minimise distribution pipework serving one zone passing through another zone and hence preventing unwanted heat gains.

7.22 Consideration may be given to other forms of heating systems which may improve safety, spacial and comfort control such as perimeter strip radiant panel heating.

7.23 The system should be adequately zoned to provide good controllability. Zone valves should have the facility for operating them via a building/energy management system. The system should be capable of controlling the heating output to individual spaces.

Ventilation (general)

7.24 Air movement induced by mechanical ventilation should be from clean to dirty areas, where these can be defined. The design should allow for adequate flow of air into any space having only mechanical extract ventilation, via transfer grilles in doors or walls. Such arrangements, however, should avoid the introduction of untempered air and should not prejudice the requirements of fire safety or audio privacy.

7.25 Mechanical ventilation should ensure that both supply and extract systems are in balance, and take account of infiltration as appropriate.

7.26 Fresh air should be introduced via a low velocity system and should be tempered and filtered before being distributed. Diffusers and grilles should be located to achieve uniform air distribution within the space, without causing discomfort to patients.

7.27 A separate extract system will be required for "dirty" areas, for example, toilet facilities. If a centralised dirty extract system is utilised it should operate continuously throughout the day and night. A dual motor fan unit with an automatic changeover facility should be provided.

7.28 If local extract systems are utilised, consideration must be given to specific safety requirements of Acute Mental Illness accommodation, for example, if the extract ventilation is via a room with a 'sealed' suspended ceiling it may be necessary to mount the fan in the external wall and have the facility for maintaining the unit from outside the space.

7.29 External discharge arrangements for extract systems should be protected against back pressure from adverse wind effects and should be located to avoid reintroduction of exhausted air into this or adjacent buildings through air intakes and windows.

7.30 Further detailed guidance is contained in HTM 2025 – 'Ventilation in healthcare premises. Design considerations'.

Ventilation controls

7.31 Supply and extract ventilation systems should include local controls and indicator lamps to confirm the operational status of each system. Where the system is used on a regular daily pattern, timeswitch control with manual override for a limited period should be considered. The indicators for a system serving a particular space should be in or immediately adjacent to that space. It may be appropriate to locate all indicators at the staff base. Where manual controls are available for staff use, they should be provided with labels which clearly define their function.

Ventilation of seclusion rooms

7.32 The seclusion room should be mechanically ventilated by an independent system. Care and consideration should be given to the acoustic integrity of the space and hence the routing of ductwork, the treatment of ductwork and the location of air intakes and discharges should be carefully selected. Consideration should be given to providing comfort cooling and humidification to enhance the level of environmental comfort to this space.

7.33 It should be possible to switch the ventilation system on from the seclusion room lobby. A general fault alarm signal should also be made available within the seclusion room lobby. The robustness and security of the air diffusers and grilles should be taken into account with the use of tamper-proof fixings, etc.

Ventilation (substances hazardous to health)

7.34 Local exhaust ventilation will be required where exposure by inhalation of substances hazardous to health cannot be controlled by other means. The Health and Safety Executive in their current publication EH40/95, Occupational Exposure Limits 1995, updated annually, sets limits which form part of the Control of Substances Hazardous to Health Regulations 1994 (COSHH).

Ventilation of day rooms/smoking rooms

7.35 Mechanical ventilation should be provided in any area where smoking may be possible. These areas should be kept at a nominal negative pressure to its surrounding accommodation. Consideration may be given to the use of electrostatic filters to reduce the amount of air extracted from the space.

Hot and cold water services

7.36 Guidance on the design and installation of hot and cold water supply and distribution systems is contained in HTM 2027 – 'Hot and cold water supply, storage and mains services'.

7.37 All cold water pipework, valves and fittings should be economically insulated and vapour sealed to protect against frost, surface condensation and heat gain.

7.38 The domestic hot water supply should be taken from either local water generators/calorifiers on the general hospital calorifier installation at a minimum outflow temperature of 60°C ± 2.5°C and distributed to all outlets such that the return temperature at the calorifier is not less than 50°C. See Health Guidance Note – '"Safe" hot water and surface temperatures'.

7.39 The requirements for the control of legionellae bacteria in hot and cold water systems are set out in HTM 2040 – 'The control of legionellae in health care premises – a code of practice'.

7.40 Showers should be vandal-resistant and designed to prevent ligature points.

7.41 Isolation of water services should be available locally to each sanitary fitting. This facility should be accessible to staff only.

Piped medical gases and vacuum

7.42 Guidance on piped medical gas systems, anaesthetic gas scavenging and gas storage is contained in HTM 2022 – 'Medical gas pipeline systems'. Consideration should be given to whether piped or portable gases and suction equipment is the most appropriate for local conditions.

Bedhead services

7.43 In the ECT suite it may be desirable to provide a more domestic environment. To achieve this, bedhead services can be concealed within a cupboard or behind some other movable feature. To enclose such services however requires care to ensure that there is adequate ventilation in the event of a gas leakage and also to provide sufficient space taking account of current practice which is to leave devices permanently inserted into medical gas outlets and plugged into electric sockets.

ELECTRICAL SERVICES

Electrical installation

7.44 The installation should comply in all respects with BS7671 – 'Requirements for Electrical Installations'. IEE Wiring Regulations. 16th Edition (and subsequent amendments) and HTM 2007 – 'Electrical services: supply and distribution'.

7.45 The point of entry for the electrical supply should be a switchcupboard housing the main isolators and distribution equipment. This space will also be the distribution centre for subsidiary electrical services. Supplies should be metered and, whenever possible, equipment should be mounted at a height which gives easy access from a standing position. Switchgear should be lockable in the "off" position.

7.46 The electrical installation in occupied areas should be concealed using PVC insulated cable and screwed steel conduit or trunking but, however in certain circumstances, mineral insulated metal-sheathed or steel wire armour (SWA) cables may be used depending on requirements. External installations should use PVC insulated cables in galvanised screwed steel conduit with waterproof fittings.

Electrical interference

7.47 Care should be taken to avoid mains-borne interference, electrical radio frequency and telephone interference affecting physiological monitoring equipment, computers and other electronic equipment used here or elsewhere on the site.

7.48 Electrical products, systems and installations should not cause, or be unduly affected by electromagnetic interference. This requirement is in the form of an EC Directive on Electromagnetic Compatibility (89/336/EEC as amended by 91/263/EEC and 92/31/EEC). This Directive has been implemented in UK law by the Electromagnetic Compatibility Regulations 1992 (SI No 2372).

7.49 Guidance on the avoidance and abatement of electrical interference is contained in HTM 2014 – 'Abatement of electrical interference'.

7.50 Fluorescent luminaires should comply with BS 5394.

Lighting

7.51 Colour finishes and lighting throughout the department should be co-ordinated to create a calm and welcoming atmosphere. Practical methods are contained in the CIBSE Lighting Guide LG2 – 'Hospitals and Health Care Buildings'.

7.52 Architects and engineers should collaborate to ensure that decorative finishes are compatible with the colour rendering properties of the lamp and that the spectral distribution of the light sources is not adversely affected.

7.53 Luminaires should be manufactured and tested in accordance with the requirements specified in the relevant sections of BS4533. Their location should afford ready access for lamp changing and maintenance, but with the overriding requirement that the recommended standard of illuminance is provided to the task area in all treatment rooms.

7.54 Luminaires require to be sufficiently robust and also inherently safe for the user groups. Diffusers may need to be made of polycarbonate, possibly laminated. These diffusers should be secured in place with tamper-proof screws to prevent patients gaining access to live terminals and controls. Hinges should be gasketed to reduce the potential for ligature points. Whilst maintaining the above

criteria, every effort should be made to provide a decorative domestic feel to the lighting scheme.

7.55 The number and location of luminaires connected to a circuit and the number of switches and circuits provided should allow flexibility in the general and local level of illumination, particularly in areas away from windows where daylight can vary significantly. Some areas of the department, which may be unoccupied for long periods may also be suited to automatic/presence switching.

7.56 Generally, energy-efficient luminaires should be used wherever possible. Intermittently and infrequently used luminaires may be fitted with compact fluorescent or incandescent lamps.

7.57 Switching arrangements should allow the patient control within their bedroom accommodation with the facility for staff to override this facility from outside the bedroom. All switch plates should be fitted with tamper proof screws.

7.58 Mobile examination luminaires, where provided, should operate at extra low voltage (normally fed from an in-built step-down transformer), be totally enclosed and be equipped with a heat filter. The temperature of external surfaces should be such as to avoid injury to patients and staff.

7.59 Where visual display terminals (VDTs) are to be used, the lighting should be designed to avoid bright reflections on the screen and to ensure that the contents of the screen are legible and meet the Health and Safety (Display Screen Equipment) Regulations 1992, which came into force on 1 January 1993. The Regulations implement a European directive, No. 90/270/EEC of 29 May 1990, on minimum safety and health requirements for work and display screen equipment. Further guidance is contained in the CIBSE Lighting Guide LG3.

The lighting of corridors, stairways and other circulation areas, which generally are areas not covered by Activity Data A-Sheets, should be in accordance with the guidance contained in HBN 40 – 'Common Activity Spaces, Volume 4'.

7.60 Emergency lighting should be provided on primary escape routes in accordance with HTM 2011 – 'Emergency electrical services' and BS5266.

Lighting – treatment rooms

7.61 An examination luminaire should be provided over the treatment chair/table it should be adjustable in pitch and rotation to allow the beam to be directed locally and should provide reasonably shadow free illumination with negligible heat development to avoid injury to patient and staff. The examination luminaires should be manufactured and tested in accordance with the requirements specified in the relevant sections of BS4533.

Controlled Drugs cupboard

7.62 A red indicating lamp should be provided on each Controlled Drugs cupboard and, where appropriate, outside the doorway to the room in which the cupboard is located and at a continuously staffed location. The lamps should be interlocked with the cupboard and alarm system to give visual and audible indication at the continuously staffed location of unauthorised entry to the cupboard.

7.63 An indicating lamp denoting that the circuit is energised should also be fitted to each cupboard. The supply circuits for the lamps and alarm system should be derived from essential circuits. The cupboards should comply with BS2881. Further information is contained in HTM 63 – 'Fitted storage systems'. More general information is contained in 'Guidelines for the Safe and Secure Handling of Medicines' (1988).

7.64 Guidance is also contained in the Scottish Home and Health Department publication: 'Guidelines for the Safe and Secure Handling of Medicines', issued with the NHS Circular No 1988 (GEN) 33.

Socket-outlets and power connections

7.65 Sufficient 13 amp switched and shuttered socket-outlets, connected to ring or spur circuits, should be provided to supply all portable appliances likely to be used simultaneously. The installation of twin outlets should be considered where activities occur in juxtaposition.

7.66 Switched socket-outlets should be provided in corridors and in individual rooms to enable domestic cleaning appliances with flexible leads (9 metres long) to operate over the whole department.

7.67 Appliances requiring a three-phase supply, or those rated in excess of 13 amp single phase, should be permanently connected to separate fused sub-circuits. The sub-circuits should be fed from the distribution board and terminate at a local isolator. Fixed appliances, less than 13 amp rating, should be permanently connected to a double-pole switched 13 amp spur outlet. The spur outlet should contain an indicating light, where appropriate, and a suitable fuse.

7.68 Isolation switches, lockable in the off position, should be provided adjacent to all engineering plant and equipment for use by maintenance staff.

7.69 Power sockets within patient bedroom areas should be provided with the facility of isolation local to the bedrooms with restricted access.

7.70 All socket-outlets in consultation/examination/ treatment areas should be connected such that a supply is available from at least two separately fused circuits of the same phase.

7.71 Socket-outlets should be connected to essential circuits in accordance with the guidance contained in HTM 2011 – 'Emergency electrical services'.

7.72 Advice on the power supply and requirements for fixed and mobile radiodiagnostic equipment is contained in HTM 2007 – 'Electrical services: supply and distribution'.

7.73 The electrical supply connections to all medical electrical equipment should comply with BS EN 60 601-1-2: 1993.

7.74 All power circuits within patient areas should be protected by the use of RCDs.

7.75 All power socket-outlets should be fitted with tamper proof screws.

Emergency electrical supplies

7.76 Guidance on emergency electrical supplies is contained in HTM 2011 – 'Emergency electrical services'.

Main entrance security systems

7.77 The main entrance should be controlled by a door security and/or closed-circuit television surveillance system which provides for verbal communication with, and an electro-magnetically operated door lock to be controlled from the reception desk. Access from the unit to the main hospital may require similar facilities.

Personal alarm transmitters

7.78 Local security policies should determine at the planning stage whether or not staff are to be issued with personal alarm transmitters. If personal alarm transmitters are not 'self contained' then conduits and accommodation for transmitting/receiving equipment and propagating devices, such as induction loops and/or aerials, will be required to suit the selected system.

Security alarm

7.79 A security alarm actuating switch or button located unobtrusively at the reception desk and staff base. It should be connected to a continuously staffed area such as the hospital telephone switchboard on the porters' room.

Staff location system

7.80 The hospital staff location system should be extended to include this department. Further guidance is contained in HTM 2015 – 'Bedhead services'.

Emergency call system (patient/staff and staff/staff)

7.81 As described in section 3 it is advised that an emergency call system is installed and call points should be strategically located such that assistance may be requested if the door or exit is blocked. this system could be a two stage process. The first stage should alert staff on the ward/unit to the problem via an audible alarm together with a method of identifying the location. This may be via a coloured light sequence system or, if more intelligent systems are utilised, via a coded message on personal pagers. The second stage should enable the staff to alert other staff in adjacent units or other areas which may need to respond through the Trust's main telecommunications switchboard. Because of the rapid developments in the communications/security industry project, teams should evaluate the options available to them at the time of planning, which could achieve the above philosophy.

7.82 A possible solution could be that the first stage (patient/staff call) may be hard wired or radio control systems with strategically placed call points (whether hard wired or radio systems are utilised they must be electromagnetically compatible). The second stage (staff/staff) could be provided through the use of radio pager type personal attack alarm systems.

7.83 Patient/staff (or first stage) call points should be provided in all spaces. Each call unit should incorporate a reassurance lamp and reset unit. The audible alarm signal initiated by patients should operate until cancelled by staff.

7.84 A visual and audible indication of operation of each system should be provided at the staff base to give responding staff unambiguous identification of the call source.

7.85 Within the unit for elderly people with mental illness there may be a preference for a general hospital

patient/staff call system as described in HTM 2015 – 'Bedhead Services'.

Telephones

7.86 Central telephone facilities for internal and external calls will normally be available and should be extended to serve this department. Telephones will normally be of the desk pattern.

7.87 Instruments in the recovery room should be fitted with indicating call lights, bells, buzzers of subdued tone and muting switches.

7.88 Coin and/or card operated payphones and free phone for taxis, depending on local policy, should be provided in the main waiting area.

7.89 Self-contained intercommunication systems are relatively inflexible and limited in the extent of their economic application. Any subsequent modifications to them usually involve disproportionate cost. In only very rare instances can such systems be justified for functional or clinical reasons.

7.90 A properly planned telephone system will provide prompt intercommunication facilities between all extensions. Abbreviated dialling can be used for a range of frequently called extension numbers. Consequently, reasons for providing a separate intercommunication system should be clearly shown.

7.91 Further guidance on telephone systems is contained in HBN 48 – 'Telephone services' and HTM 2055 – 'Telecommunications (telephone exchanges)'.

Data links

7.92 Conduits will be required for cables to interconnect electronic equipment. The extent to which these conduits should link all workstations in this department and the main hospital system or elsewhere will depend on the local policy for automatic data processing. If a structured cable system is to be installed within the hospital, then the unit should be provided with all outlets wired and connected. Conduits may also be required to link closed-circuit television between the seminar room and treatment areas.

Clocks

7.93 Clocks may be of impulse, synchronous or battery/quartz type.

Seclusion room intercom

7.94 A two-way communication system should be provided between the seclusion room lobby and the seclusion room. It should be possible to adjust the volume of the output. The equipment in the seclusion room should be robust and flush mounted.

Music and television

7.95 Conduits for television/video and background music system outlets should be provided in the day rooms and activity rooms. Consideration may be given as a project option to increasing the density of coverage to include such areas as the patient bedrooms.

Lightning protection

7.96 Protection of the building against lightning should be provided in accordance with HTM 2007 and BS6651: 1992.

INTERNAL DRAINAGE

General

7.97 The primary objective is to provide an internal drainage system which:

a. uses the minimum of pipework;

b. remains water and air tight at joints and connectors;

c. is sufficiently ventilated to retain the integrity of water seals.

Design parameters

7.98 The design should comply with the relevant British Standards and Codes of Practice, including BS5572, and the current building regulations. Recommendations for spatial and access requirements for public health engineering services are contained in HSE Data Sheet EA5.

7.99 The gradient of branch drains should be uniform and adequate to convey the maximum discharge to the stack without blockage. Practical considerations, such as available angles of bends, junctions and their assembly, as well as space considerations, usually limit the minimum gradient to about 1:50 (20 mm/m). For larger pipes, for example 100 mm diameter, the gradient may be less, but this will require workmanship of a high standard if an adequate self-cleaning flow is to be maintained. It is not envisaged that pipes larger than 100 mm diameter will be

required within interfloor or ground floor systems serving this department.

7.100 Provision for inspection, rodding and maintenance should ensure "full bore" access and be located to minimise disruption or possible contamination. Manholes should not be located within this unit.

7.101 The system should be designed to reduce the potential problem of abuse, for example patients blocking toilets.

8.0 Cost information

Introduction

8.1 For all types of health building, it is important that building costs and revenue expenditure are kept as low as possible and consistent with acceptable standards. In applying the guidance in this document to determine a detailed design, the need for economy should always be of prime concern and the activities should be carefully considered so that, where appropriate, space can be shared for similar activities which are programmed to take place at different times. The solution should not be detrimental to the proper functioning of the spaces involved nor to the needs of the users. Within this general context, Health Building Notes provide a synopsis of accommodation for the provision of a given service.

Departmental Cost Allowance Guides

8.2 Departmental Cost Allowance Guides (DCAG's) related to this HBN are officially notified in the Quarterly Briefing published by NHS Estates. A full listing of all DCAG's is listed in the DCAG Database – a hard copy of which together with some guidance notes can be obtained from NHS Estates. Further information on this can be obtained from NHS Estates, telephone (0113) 254 7030.

8.3 The attention of the Project Team is drawn to guidance given in the Capital Investment Manual (Business Case Guide) published by HMSO. This publication seeks to reflect the important changes that have taken place over recent years, both with the introduction of the NHS reforms and with the changing patterns of health care delivery. This new process is intended to reduce unnecessary and often expensive planning work which may subsequently prove to be abortive and emphasises the necessity for a sound business case in support of both the capital and revenue expenditure involved. The Capital Investment Manual also defines that the Capital Works estimate of the intended scheme must be based on, wherever applicable, industry norms such as the DCAGs plus a percentage to cover for on-costs.

8.4 The DCAGs for this HBN reflect the total building and engineering requirements related to a newbuild single storey stand-alone acute mental illness unit, on a greenfield site with no specific planning constraints. Some reduction in space requirements may be deemed feasible if the unit is built in the grounds of an existing acute hospital where the sharing of common spaces and engineering services could be arranged. Accordingly suitable amendments should be made to both the schedule of accommodation and the relevant DCAGs published should this be the case.

8.5 DCAGs are exclusive of VAT, Building and Planning Fees and all Local Authority charges and are based on a Locational Factor of 1.

On-costs

8.6 It is important to bear in mind that an allowance for on-costs is not normally added to the DCAGs. However the DCAGs for this HBN do cover part of the building and engineering on-cost elements. This is due to the unit being built as a stand-alone unit and that specific external works and services are an integral part of a successful unit.

8.7 The following on-costs are therefore included within the DCAGs:

a. independent heat source;

b. external security lighting;

c. CCTV.

8.8 The Project Team's attention is drawn to the fact that the following on-costs should be included as part of an acute mental illness unit but are **NOT** included in the relevant DCAGs:

a. secure external space in the adult acute unit;

b. enclosed outside area in the elderly acute unit;

c. fencing to external spaces;

d. pedestrian footpath around the external perimeter of the unit;

e. bin store;

f. entrance ramp and footpath to building;

g. main entrance canopy.

8.9 It is also important that Project Teams should assess at the earliest opportunity all the likely on-cost implications of each individual site and scheme and the abnormals derived there from. The abnormals will largely be determined by the characteristics of the site, such as an inner-city location and/or the condition and type of the existing building if refurbishment is the only option.

Locational factors

8.10 Locational factor adjustments may be applied to the Works Costs (that is the total of the DCAGs plus the requisite on-costs) to take into account the local market conditions. For further information regarding these please refer to the latest Regional Location factors in the Quarterly Briefing published by NHS Estates.

Functional units

8.11 The functional units for accommodation for people with acute mental illness are as follows:

Entrances and receptions	1 entrance
Adult acute ward	15 beds
Intensive care ward	5 beds and 10 beds
Admissions suite	1 suite
Activity spaces	Small and medium unit
Administration and general support facilities	1 unit
ECT suite	1 suite
Out-patients Department	3 and 6 consulting/ examination rooms
Elderly acute ward	20 beds
Elderly day hospital	10 and 20 places

The activity spaces and areas used for costing the functional units are listed in the schedules of accommodation at the end of this chapter.

Essential complementary accommodation (ECA)

8.12 This comprises activity spaces which are essential to the running of the unit, but which in certain circumstances may be available in a convenient location elsewhere. The amount of ECA which will need to be provided as part of an individual project will therefore vary according to the extent of the provision elsewhere. The ECAs costed in this HBN are listed in the schedules of accommodation at the end of this chapter.

Optional accommodation and services (OAS)

8.13 This HBN, where appropriate, draws attention to project options for providing services or facilities, including the likely cost implications. This information will enable the project manager to select the solution which is most suitable to their needs. The OAS costed in this HBN are listed in the schedules of accommodation at the end of this chapter.

8.14 Provision has been made by way of OAS for the accommodation required in respect of central dining facilities. If central dining facilities are to be used then the additional (extra over) servery space should also be included.

8.15 In determining spatial requirements, the essential factor is not the total area provided but the critical dimensions, that is, those dimensions critical to the efficient functioning of the activities which are to be carried out. To assist project teams in preparing detailed design solutions for the rooms and spaces, studies have been carried out to establish dimensional requirements in the form of critical dimensions. The results of these studies appear as ergonomic diagrams in Health Building Note 40 – Volumes 1–4.

8.16 For development planning and at the earliest stage of a design, it may be convenient for designers to have data available which will enable them to make an approximate assessment of the sizes involved. For this reason, the areas prepared for the purpose of establishing the cost allowances are listed in the schedules of accommodation at the end of this chapter.

8.17 It is emphasised that the areas published do not represent recommended sizes, nor are they to be regarded in any way as specific individual entitlements.

8.18 Another important factor affecting the area requirement, particularly in the out-patients area, is the timetabling of those services offered within the unit. An out-patients unit that runs an efficient appointment system will tend to require less space for waiting than one which does not. Also a unit with a good operational policy which attempts to rationalise the use of other more general/common spaces can function with less space.

8.19 Planning of the building efficiently may also necessitate variation of areas, for instance, in the refurbishment or conversion of older property:

a. rooms tend to be larger than the recommended area;

b. some rooms may be too small or in the wrong location for efficient use;

c. circulation space tends to form a larger than normal proportion of the total area.

Circulation

8.20 Space for circulation, that is all internal corridors, small vertical ducts and spaces occupied by partitions and walls, is included at twenty five percent, provision is also made for a five percent planning zone and a three percent addition for an engineering zone adjacent to the external walls. These areas are all included and therefore costed in the DCAGs.

8.21 It is also important to remember that the circulation figures included in the DCAGs for this type of accommodation are those anticipated for new purpose built premises with no constraints. Where constraints are encountered for example in refurbishment or conversion of older types of property then this circulation figure would be likely to increase accordingly, therefore some adjustment may be necessary to the circulation figure.

Communications

8.22 Staircases and lifts are not included in the DCAGs relevant to this unit. Costs related to these elements along with a suitable space standard allowance should be made in the on-costs. For further reference please refer to HBN 40 Volume 4 – 'Circulation Areas'.

Land costs

8.23 As is the norm for DCAGs costs are exclusive of all land costs and associated fees. However the Project Teams attention is drawn to the fact that costs associated with these should be included in the Business Case Submission, all as detailed in the Capital Investment Manual, and could therefore be an important part of the overall cost viability of the scheme.

Engineering services

8.24 For the purpose of a cost allowance, the following indicative engineering services are included. Attention is brought to the fact that other systems may be considered and financially evaluated accordingly as described in the Engineering Chapter and exemplified in the Activity Data. No allowance is given for either bringing new utility services up to the unit or connections to existing primary engineering services if the unit is to be sited on existing healthcare estate.

a. **Mechanical services**

Heating:	low pressure hot water system with thermostatic radiator control, maximum touch temperature 43°C.
Ventilation:	mechanical supply and extract to meet clinical and functional requirements as examplified in the Activity Data but planning constraints may require other areas to be mechanically ventilated.
Cold water supply:	Supply to service outlets and fire hose reels and including portable storage tanks of sufficient capacity to comply with HTM 2027.
Hot water supply:	Hot water generated via direct gas fired semi storage vessels and distributed to the outlets via a network with a secondary return.
Bedhead services:	An allowance is made for bedhead services within the ECT site and recovery room to be piped from a local bottle store to discrete outlets.

b. **Electrical services**

Incoming supply and switchgear – provision for low voltage switchgear is included the DCAG.

Departmental distribution switchboard.

Lighting system:	general lighting as required by tasks. Fluorescent, tungsten, safety and emergency luminaries as appropriate.
Power system:	socket-outlets and other power outlets for fixed and portable equipment.

Supplementary equipotential earth bonding.

Alarm system:	fire, panic attach, security and drug cupboard.
Clocks:	
Music and television:	conduits, cabling and outlets, but excluding equipment.
Telephone:	conduits, cabling and outlets, but excluding instruments (handsets, payphones etc).
Data transmission:	conduits and socket-outlets only.

c. **Equipment (Group 1)**

X-ray viewers.

Controlled drugs cupboard.

Bed-pan washer/disinfector.

Dishwasher.

Refrigerator.

Kiln.

Vending machines.

Washing machines.

Water boiler.

Microwave ovens, gas and electric cookers.

Schedules of accommodation

8.25 The following schedules are based on the text in chapters 3, 4 and 5, and are **illustrative of the acceptable accommodation** for the functional units detailed.

Entrance and Reception Area

1 Entrance

Para No	Activity Space	Space Area m²	Quantity No	Total m²
4.05	Draught Lobby			6.0
4.05	Foyer			15.0
4.01	Reception			10.0
4.10	Waiting			10.0
4.10	WC – Wheelchair access – type 5	4.5	1	4.5
4.04	Service Entrance and Control Lobby			6.0
	Nett Total			51.5
	Planning	5.0%		2.6
	Sub-Total			54.1
	Engineering Zone	3.0%		1.6
	Circulation	25.0%		13.5
	Gross Total			69.2
	Departmental Total			**70**

Adult Acute Ward

Para No	Activity Space	Space Area m²	Quantity No	Total m²
		15 beds		
	Ward Areas			
4.14	Bedroom with en-suite shower/wc/whb	15.0	14	210.0
4.30	Mother & baby/Disabled with en-suite bath/WC/WHB	18.5	1	18.5
	Sanitary Facilities			
4.38	Assisted Bathroom – type 2	16.0	1	16.0
4.45	WC – Wheelchair access – type 5	4.5	1	4.5
4.33	WC – type 1	2.0	2	4.0
	Patients' Day Spaces			
4.52	Patients' Utility/Laundry Room	13.5	1	13.5
4.53	Sitting Room/TV Lounge	32.0	1	32.0
4.55	Quiet Room	15.0	1	15.0
4.56	Smoking Lounge	15.0	1	15.0
4.61	Group Room	15.0	1	15.0
4.62	Dining Room	20.0	1	20.0
4.64	Ward Pantry	12.0	1	12.0
	Ward Admin			
4.81	Staff Base	10.0	1	10.0
4.80	Ward Office	11.0	1	11.0
4.78	Doctors Office	11.0	1	11.0
4.79	Interview Room	11.0	1	11.0
	Support Spaces			
4.66	Treatment/Clean Utility Room	16.5	1	16.5
4.71	Dirty Utility Room	12.5	1	12.5
4.75	Disposal Hold	4.0	1	4.0
4.77	Patients Property Store	15.0	1	15.0
4.95	Store – general	6.0	1	6.0
4.95	Store – equipment etc	8.0	1	8.0
4.95	Store - linen	5.5	1	5.5
4.89	Cleaners' Room	7.0	1	7.0
4.98	Switchcupboard			2.0
-	Plant room			14.0
	Nett Total			509.0
	Planning	5.0%		25.5
	Sub-Total			534.5
	Engineering Zone	3.0%		16.0
	Circulation	25.0%		133.6
	Gross Total			684.1
	Departmental Total			**685**

Essential Complementary Accommodation

Para No	Activity Space	Space Area	Planning	Sub-Total	Engineering	Circulation	Total
	Staff Facilities						
4.149	Staff Rest Room/Beverages	**15.0**	**0.8**	**15.8**	**0.5**	**3.9**	**20.0**
4.151	Staff WC – type 5	**4.5**	**0.2**	**4.7**	**0.1**	**1.2**	**6.0**

Optional Accommodation and Services

Para No	Activity Space	Space Area	Planning	Sub-Total	Engineering	Circulation	Total
	Support Spaces						
4.71	Dirty Utility Room	16.0	0.8	16.8	0.5	4.2	**21.5**
	Patients Day Spaces						
4.88	Telephone Kiosk	2.0	0.1	2.1	0.1	0.5	**2.5**
4.135	Central Dining Room						
	– 20 patients	30.0	1.5	31.5	0.9	7.9	**40.5**
	– 40 patients	60.0	3.0	63.0	1.9	15.8	**80.5**
	– 60 patients	90.0	4.5	94.5	2.8	23.6	**121.0**
	Additional servery area (extra over unit area for Ward Pantry)						
4.64	Servery	10.0	0.5	10.5	0.3	2.6	**13.5**

Intensive Care Ward

Para No	Activity Space	Space Area m²	5 beds Quantity No	5 beds Total m²	10 beds Quantity	10 beds No	10 beds Total m²
	Ward Areas						
4.102	Bedroom with en-suite wc/whb	12.5	5	62.5	10		125.0
4.111	Seclusion Room	11.0	1	11.0	1		11.0
4.111	Seclusion Room Lobby	3.0	1	3.0	1		3.0
	Sanitary Facilities						
4.102	Bathroom assisted – type 2	16.0	1	16.0	2		32.0
4.102	Shower assisted – type 1	7.5	2	15.0	4		30.0
4.102	WC – Disabled access – type 5	4.5	1	4.5	2		9.0
	Patients' Day Spaces						
4.102	Patients' Utility/Laundry	13.5	1	13.5	1		13.5
4.102	Smoking Lounge	15.0	1	15.0	1		15.0
4.104	General Activities	15.0	2	30.0	3		45.0
4.103	Dining Room			16.0			20.0
4.102	Ward Pantry	12.0	1	12.0	1		12.0
	Ward Admin						
4.102	Staff Base	10.0	1	10.0	1		10.0
4.102	Ward Office	11.0	1	11.0	1		11.0
	Support Spaces						
4.102	Treatment/Clean Utility Room	16.5	1	16.5	1		16.5
4.102	Dirty Utility Room	12.5	1	12.5	1		12.5
4.102	Disposal Hold	4.0	1	4.0	1		4.0
4.102	Patients' Property Store			5.0			10.0
4.102	Store – general	6.0	1	6.0	1		6.0
4.102	Store – equipment etc			-			8.0
4.102	Store – linen	5.5	1	5.5	1		5.5
4.102	Domestics Room	7.0	1	7.0	1		7.0
4.102	Switchcupboard			2.0			4.0
-	Plant room			10.0			14.0
	Nett Total			288.0			424.0
	Planning	5%		14.4			21.2
	Sub-Total			302.4			445.2
	Engineering Zone	3%		9.1			13.4
	Circulation	25%		75.6			111.3
	Gross Total			387.1			569.9
	Departmental Total			**385**			**570**

Optional Accommodation and Services

Para No	Activity Space	Space Area	Planning	Sub-Total	Engineering	Circulation	Total
	Patients' Day Spaces						
4.102	Arts/Craft Room	20.0	1.0	21.0	0.6	5.3	**27.0**
4.102	Fitness Room	20.0	1.0	21.0	0.6	5.3	**27.0**
	Ward Admin						
4.102	Doctors' Office	11.0	0.6	11.6	0.3	2.9	**15.00**

Activity Spaces

Para No	Activity Space	Space Area m²	Small Quantity No	Small Total m²	Medium Quantity No	Medium Total m²
	Activity Centre					
4.121	Gymnasium/Large meeting room			-		300.0
4.121	Fitness Room	20.0	1	20.0		
	Changing/Sanitary Spaces					
4.125	WC – Wheelchair access - type 5	4.5	1	4.5	3	13.5
4.125	WC – type 1	2.0	2	4.0	6	12.0
4.125	Changing room/showers - patients	12.0		-	2	24.0
	Occupational Therapy Spaces					
4.129	Arts/Crafts Room			25.0		30.0
4.132	ADL Kitchen	20.0	1	20.0	1	20.0
4.134	Lounge/Beverage Bay			20.0		30.0
	Staff Spaces					
4.127	Office – Occupational Therapist	11.0	1	11.0	1	11.0
4.126	Office – Physiotherapist	11.0	1	11.0	1	11.0
	Support Spaces					
4.130	Store			18.0		28.0
4.137	Cleaners' Room	7.0	1	7.0	1	7.0
4.138	Switchcupboard			2.0		4.0
-	Plant					
	Nett Total			142.5		490.5
	Planning	5%		7.1		24.5
	Sub-Total			149.6		515.0
	Engineering Zone	3%		4.5		15.5
	Circulation	25%		37.4		128.8
	Gross Total			191.5		659.2
	Departmental Total			**190**		**660**

Optional Accommodation and Services

Para No	Activity Space	Space Area	Planning	Sub-Total	Engineering	Circulation	Total
	Occupational Therapy Spaces						
4.140	Tool Shed (External)	5.0	0.3	5.3	N/A	N/A	**5.0**
	Staff Spaces						
4.148	Staff Changing	12.0	0.6	12.6	0.4	3.2	**16.0**

Admissions Suite

Para No	Activity Space	Space Area m²	1 Suite Quantity No	1 Suite Total m²
4.117	Draught lobby			5.0
4.117	Reception		1	10.0
4.117	Waiting		1	5.0
4.118	WC – wheelchair access – type 5	4.5	1	4.5
4.119	Interview /Assessment Room	11.0	1	11.0
4.120	Examination/Treatment	16.5	1	16.5
	Nett Total			52.0
	Planning	5%		2.6
	Sub-Total			54.6
	Engineering Zone	3%		1.6
	Circulation	25%		13.7
	Gross Total			69.9
	Departmental Total			**70**

ECT Suite

Para No	Activity Space	Space Area m2	1 Suite Quantity No	1 Suite Total m2
	Reception			
4.159	Reception/Waiting			20.0
4.160	WC - Wheelchair access - type 5	4.5	1	4.5
	Patient Treatment Spaces			
4.161	Treatment Room	16.5	1	16.5
4.163	Primary Recovery Area (2 Trolleys)	12.5	1	12.5
4.164	Post ECT Lounge	15.0	1	15.0
	Staff Facilities			
4.165	Office		1	7.0
	Support Spaces			
4.167	Switchcupboard		1	5.0
	Nett Total			80.5
	Planning	5%		4.0
	Sub-Total			84.5
	Engineering Zone	3%		2.5
	Circulation	25%		21.1
	Gross Total			108.1
	Departmental Total			**110.0**

Optional Accommodation and Services

Para No	Activity Space	Space Area	Planning	Sub-Total	Engineering	Circulation	Total
4.163	Primary Recovery Area (6 Trolleys)	30.0	1.5	31.5	0.9	7.9	**40**

Out-Patients Department

Para No	Activity Space	Space Area m²	3 C/E Rooms Quantity No	3 C/E Rooms Total m²	6 C/E Rooms Quantity No	6 C/E Rooms Total m²
	Reception					
4.170	Reception			10.0		10.0
4.170	Waiting			16.0		20.0
4.176	WC – Wheelchair access – type 5	4.5	1	4.5	2	9.0
	Patient Treatment Spaces					
4.173	Consulting/Interview Rooms	15.5	3	46.5	6	93.0
	Staff Facilities					
4.171	Staff Base	6.0	1	6.0	1	6.0
	Support Spaces					
4.177	Store	7.0	1	7.0	2	14.0
4.179	Switchcupboard			2.0		2.0
	Nett Total			92.0		154.0
	Planning	5%		4.6		7.7
	Sub-Total			96.6		161.7
	Engineering Zone	3%		2.9		4.9
	Circulation	25%		24.2		40.4
	Gross Total			123.6		207.0
	Departmental Total			**125.0**		**205.0**

Essential Complementary Accommodation

Para No	Activity Space	Space Area	Planning	Sub-Total	Engineering	Circulation	Total
4.174	Treatment/Clean Utility Room	16.5	0.8	17.3	0.5	4.3	**22.0**
4.175	Dirty Utility Room	7.0	0.4	7.4	0.2	1.8	**9.5**
4.178	Cleaners Room	7.0	0.4	7.4	0.2	1.8	**9.5**

Administration and General Support Facilities

Para No	Activity Space	Space Area m²	1 Unit Quantity No	1 Unit Total m²
	Reception			
4.142	Reception			10.0
4.144	Waiting			16.0
	General Office Spaces			
4.145	General Office	15.0	1	15.0
4.145	Patients' Bank	7.5	1	7.5
4.146	Records Store	7.5	2	15.0
4.147	Furniture Store	12.0	1	12.0
	Staff Spaces			
4.143	Offices – 1 Person	11.0	2	22.0
4.152	Interview Room	11.0	1	11.0
4.149	Staff Rest Room/Pantry	20.0	1	20.0
4.148	Staff change	7.5	2	15.0
4.148	Staff shower	7.0	2	14.0
4.151	WC – Wheelchair access – type 5	4.5	1	4.5
	Support Spaces			
4.154	Cleaners' Room	7.0	1	7.0
4.155	Switchcupboard			2.0
-	Plant			8.0
	Nett Total			179.0
	Planning	5%		9.0
	Sub-Total			188.0
	Engineering Zone	3%		5.6
	Circulation	25%		47.0
	Gross Total			240.6
	Departmental Total			**240**

Essential Complementary Accommodation

Para No	Activity Space	Space Area	Planning	Sub-Total	Engineering	Circulation	Total
	Staff Spaces						
4.153	Seminar Room/Library	20.0	1.0	21.0	0.6	5.3	**27.0**

Optional Accommodation and Services

Para No	Activity Space	Space Area	Planning	Sub-Total	Engineering	Circulation	Total
	Reception						
4.144	Waiting	7.0	0.4	7.4	0.2	1.8	**9.5**
	General Office Spaces						
4.143	Office – Consultant	16.0	0.8	16.8	0.5	4.2	**21.5**
4.143	Office – 2 persons	12.0	0.6	12.6	0.4	3.2	**16.0**
4.143	Office – 4 persons	24.0	1.2	25.2	0.8	6.3	**32.5**
4.143	Office – 6 persons	36.0	1.8	37.8	1.1	9.5	**48.5**
4.147	Furniture Store	20.0	1.0	21.0	0.6	5.3	**27.0**
4.146	Records Store	11.0	0.6	11.6	0.3	2.9	**15.0**
	Staff Facilites						-
4.148	Staff Change	7.5	0.4	7.9	0.2	2.0	**10.0**

Elderly Acute Ward

Para No	Activity Space	Space Area m²	20 beds Quantity No	20 beds Total m²
	Ward Areas			
5.46	Bedroom with en-suite wc/whb	17.0	20	340.0
	Sanitary Facilities			
5.50	Bathroom – assisted Type 1	8.5	1	8.5
5.49	Bathroom – assisted Type 2	16.0	1	16.0
5.51	WC – Wheelchair access – type 5	4.5	2	9.0
5.48	Shower/wc/whb – assisted	7.5	1	7.5
	Patients Day Spaces			
5.60	Patients Utility/Laundry Room	13.5	1	13.5
5.52	Sitting Room/TV Lounge	32.0	1	32.0
5.52	Quiet Room	15.0	1	15.0
5.52	Smoking Lounge	15.0	1	15.0
5.54	General Room	15.0	2	30.0
5.55	Dining Room	15.0	2	30.0
5.55	Ward Pantry	12.0	1	12.0
	Ward Admin			
5.62	Staff Base	10.0	1	10.0
5.62	Doctors' Office	11.0	1	11.0
5.62	Interview Room	11.0	1	11.0
	Support Spaces			
5.60	Treatment/Clean Utility Room	16.5	1	16.5
5.60	Clean Utility	10.0	1	10.0
5.58	Dirty Utility	7.0	1	7.0
5.62	Disposal Hold	4.0	1	4.0
5.59	Store – general	6.0	1	6.0
5.59	Store – equipment etc	15.0	1	15.0
5.59	Store – linen	5.5	1	5.5
5.62	Cleaners' Room	7.0	1	7.0
5.62	Switchcupboard			2.0
-	Plant room			10.0
	Nett Total			643.5
	Planning	5.0%		32.2
	Sub-Total			675.7
	Engineering Zone	3.0%		20.3
	Circulation	30.0%		202.7
	Gross Total			898.6
	Departmental Total			**900**

Essential Complementary Accommodation

Para No	Activity Space	Space Area	Planning	Sub-Total	Engineering	Circulation	Total
	Staff Facilities						
5.60	Staff Rest Room/Beverages	15.0	0.8	15.8	0.5	4.7	**21.0**
5.61	Staff WC – type 1	2.0	0.1	2.1	0.1	0.6	**3.0**

Optional Accommodation and Services

Para No	Activity Space	Space Area	Planning	Sub-Total	Engineering	Circulation	Total
5.56	Arts and Crafts Room	30.0	1.5	31.5	0.9	9.5	**42.0**
5.57	Physiotherapy	24.0	1.2	25.2	0.8	7.6	**33.5**

Elderly Day Hospital

Para No	Activity Space	Space Area m²	10 Places Quantity No	10 Places Total m²	20 Places Quantity No	20 Places Total	m²
	Reception						
5.15	Reception/Office	11.0	1	11.0	1		11.0
5.17	Multi-Disciplinary Office	11.0	1	11.0	1		11.0
5.21	Patients' Cloakroom	7.0	1	7.0	2		14.0
5.15	Sub-Waiting	7.0	1	7.0	1		7.0
	Sanitary Facilities						
5.34	Bathroom assisted – type 2	16.0	1	16.0	1		16.0
5.27	WC – Wheelchair access – type 3	3.0	1	3.0	1		3.0
5.27	WC – Assisted – type 5	4.5	2	9.0	4		18.0
	Patients Day Spaces						
5.24	Sitting Room	20.0	1	20.0	1		20.0
5.28	Quiet Room	15.0	1	15.0	1		15.0
5.29	Day Spaces	15.0	2	30.0	3		45.0
5.33	ADL Kitchen	20.0	1	20.0	1		20.0
5.25	Dining Room	15.0	1	15.0	2		30.0
5.26	Pantry			8.5			12.0
	Staff Facilities						
5.16	Staff Base	10.0	1	10.0	1		10.0
5.16	Ward Office	11.0	1	11.0	1		11.0
5.18	Doctors Office	11.0	1	11.0	1		11.0
5.19	Consulting/Interview Room	11.0	1	11.0	1		11.0
5.22	Staff Cloakroom	3.0	1	3.0	1		3.0
5.23	WC – Type 2	2.5	1	2.5	2		5.0
	Support Spaces						
5.20	Examination/Treatment	16.5	1	16.5	1		16.5
5.36	Dirty Utility	9.0	1	9.0	1		9.0
5.37	Disposal Hold	4.0	1	4.0	1		4.0
5.38	Store – Occupational Therapy	4.0	1	4.0	1		4.0
5.39	Store – general	6.0	1	6.0	1		6.0
5.39	Store – equipment etc	8.0	1	8.0	1		8.0
5.40	Cleaners Room	7.0	1	7.0	1		7.0
5.41	Switchcupboard	2.0	1	2.0	2		4.0
	Nett Total			277.5			331.5
	Planning	5%		13.9			16.6
	Sub-Total			291.4			348.1
	Engineering Zone	3%		8.7			10.4
	Circulation	30%		87.4			104.4
	Gross Total			387.5			462.9
	Departmental Total			**390**			**465**

Optional Accommodation and Services

Para No	Activity Space	Space Area	Planning	Sub-Total	Engineering	Circulation	Total
5.32	Beauty/Hairdressing Room	11.0	0.6	11.6	0.3	3.5	**15.5**
5.35	Clean Utility	9.0	0.5	9.5	0.3	2.8	**12.5**

9.0 Activity data

Introduction

9.1 Activity DataBase is an information system developed to help project and design teams by defining the users' needs more precisely. This information constitutes the computerised Activity DataBase for Windows, updated twice yearly.

9.2 Room Data Sheets record in more detail than is described in this Note, each task or activity that is performed in a particular activity space, together with environmental conditions and the technical data necessary to enable the activities to be performed. Each Room Data Sheet also contains a list of relevant assembly and component codes and descriptions. Room area information is provided in conjunction with a room graphic.

9.3 Assembly Data Sheets provide narrative text and ergonomically arranged graphics to scale relating to one activity. They show equipment fitted or supplied as part of the building, and the necessary engineering terminals.

9.4 Component schedules provide information about the total quantities of group 1, 2 and 3 components for single data sheets or for all data sheets for a department. Group 4 components are not included in the schedule – see paragraph 1.10.

9.5 Activity data is only available in the form of magnetic media, but users may generate paper copies where required.

9.6 Further information about the use and preparation of activity data can be obtained from NHS Estates, Department of Health, 1 Trevelyan Square, Boar Lane, Leeds LS1 6AE.

Activity data applicable to this Note

9.7 The Room Data Sheets recommended for the activity spaces described in this Note are either new sheets, amended ones or ones selected from existing sheets. A list of Room Data Sheet code numbers and titles is given at the end of this chapter.

9.8 Further Room Data Sheets may be selected, or drawn up by project teams to their own requirements, for any services not described in the Note or included in the list.

9.9 In order to ensure consistent and economic provision, variations from the Room Data Sheets recommended for the spaces covered in this Note should be considered only where it has been decided that the function of a space will differ substantially from that described.

Lists of Room Data Sheets

9.10 The Room Data Sheets listed below may not carry a title identical to the activity spaces detailed in this Note. Use of the appropriate code number will, however, result in the correct activity space being accessed.

9.11 The Room Data Sheets are listed below in the same order as the spaces to which they relate are listed in the Schedule of Accommodation (Chapter 8).

9.12 Some of the Room Data Sheets listed below relate specifically to a department of a certain size. For smaller or larger sizes of department the Room Data Sheets will need to be amended as appropriate.

Para no.	Activity space	Room data sheet code
	Entrances and Reception	
4.05	Draught lobby	J0104
4.05	Foyer	J0136
4.01	Reception, 2 persons	J0206
4.10	Waiting, 6 persons	J1204
4.04	Service Entrance and control lobby	J0141
4.10	WC, wheelchair (type 5)	V1217
HBN 35B – Adult Acute Ward, 15 beds		
	Ward areas	
4.14	Bedroom, divan	B0505
4.14	Shower/WC/WHB ambulant	V1315
4.30	Mother & baby/disabled wheelchair	B0510
4.30	Bath/WC/WHB	V1715
	Sanitary facilities	
4.38	Bathroom assisted (type 2)	V1708
4.45	WC, wheelchair (type 5)	V1217
4.33	WC, ambulant (type 1)	V1007
	Patients' day spaces	
4.52	Patients' utility/laundry room	Y0503
4.53	Sitting room/TV lounge, 15 places	D1112
4.55	Quiet room	D1109
4.56	Smoking lounge, TV	D1115
4.61	Group room	D1114
4.62	Dining room, 15 places	D0607
4.64	Ward pantry	P0610
	Ward administration	
4.81	Staff base	T0106
4.80	Ward office	M0207
4.78	Doctors' office	M0304
4.79	Interview room	M0708
	Support spaces	
4.66	Treatment/clean utility room	X0703
4.71	Dirty utility room	Y0302
4.75	Disposal hold	Y0603
4.77	Store – patients' property, 15 places	W1405
4.95	Store – general	W1506
4.95	Store – equipment	W1407
4.95	Store – linen	W1421
4.89	Cleaners' room	Y1201
4.98	Switchcupboard	K0101A
	Essential complementary accommodation	
	Staff facilities	
4.150	Staff rest room/beverages bay 10	D0201
4.151	Staff WC (type 5)	V1217

	Optional accommodation and services	
	Support spaces	
4.71	Dirty utility room	Y0301
	Patients' day spaces	
4.88	Telephone kiosk	G0703
4.135	Central dining room, 20 patients	F0210
4.135	Central dining room, 40 patients	F0211
4.135	Central dining room, 60 patients	F0212
	Additional servery area (extra over unit area for ward pantry)	
4.64	Servery	F0308

HBN 35C – Intensive care ward

4.102	Bedroom, divan	B0505
4.102	WC/WHB	V1109
4.111	Seclusion room	B0507
4.111	Seclusion room lobby	G0502
	Sanitary facilities	
4.102	Bathroom assisted (type 2)	V1708
4.102	Shower assisted, wheelchair/WC/WHB (type 1)	V1612
4.102	WC, wheelchair (type 5)	V1217
	Patients' day spaces	
4.102	Patients' utility/laundry room	Y0503
4.102	Smoking lounge, TV	D1115
4.104	General activities	Q0508
4.103	Dining room, 10 places	D0606
4.103	Dining room, 15 places	D0607
4.64	Ward pantry	P0610
	Ward administration	
4.102	Staff base	T0106
4.102	Ward office	M0207
	Support spaces	
4.102	Treatment/clean utility room	X0703
4.102	Dirty utility room	Y0302
4.102	Disposal hold	Y0603
4.102	Store – patients' property, 5 places	W1402
4.102	Store – patients' property, 10 places	W1403
4.102	Store – general	W1506
4.102	Store – equipment	W1407
4.102	Store – linen	W1421
4.102	Cleaners' room	Y1201
4.102	Switchcupboard	K0101A, K0101

HBN 35C3 – Optional accommodation & services

	Patients' day spaces	
4.102	Arts/craft room	Q0410
4.102	Fitness room	Q0602
	Ward administration	
4.102	Doctor's office	M0304

HBN 35D – Activity spaces

	Activity centre	
4.121	Gymnasium/large meeting room	Q0615
4.121	Fitness room	Q0602
	Changing/sanitary spaces	
4.125	WC, wheelchair (type 5)	V1217
4.125	WC, ambulant (type 1)	V1007
4.125	Changing room, patient	V0712
4.125	Shower, tray	V0801
	Occupational therapy spaces	
4.129	Arts/crafts room, small	Q0410
4.129	Arts/crafts room, medium	Q0412
4.132	ADL kitchen	Q0114
4.134	Lounge/beverage bay, 10 persons	D1116
4.134	Lounge/beverage bay, 15 persons	D1117
	Staff spaces	
4.127	Office – Occupational therapists	M1007
4.126	Office – Physiotherapist	M0532
	Support spaces	
4.130	Store, small	W1590
4.130	Store, medium	W1591
4.137	Cleaners' room	Y1201
4.138	switchcupboard	K0101A, K0101

HBN 35D3 Optional accommodation and services

4.140	Tool shed (external)	No code applicable
4.148	Staff changing, 12 persons	V0505

HBN 35E – Admissions suite (optional)

4.117	Draught lobby	J0103
4.117	Reception, 2 staff	J0206
4.117	Waiting, 3 persons	J1206
4.118	WC, wheelchair (type 5)	V1217
4.119	Interview/assessment room	M0708
4.120	Consulting/examination room	C0207

HBN 35F – ECT suite

	Reception	
4.159	Reception/waiting	J0804
4.160	WC, wheelchair (type 5)	V1217
	Patient treatment spaces	
4.161	Treatment room	X0104
4.163	Primary recovery (2 trolleys)	B2405
4.164	Post ECT lounge	B2408
	Staff facilities	
4.165	Office	M0220A

	Support spaces	
4.167	Switchcupboard	K0101E

HBN 35F1 – Optional accommodation and services

4.163	Primary recovery (6 trolleys)	B2406

HBN 35G – Out-patients department

	Reception	
4.170	Reception, 2 staff	J0206
4.170	Waiting, 10 persons	J1217
4.170	Waiting, 15 persons	J1110
4.176	WC, wheelchair (type 5)	V1217
	Patient treatment spaces	
4.173	Consulting/interview/examination	C0207
	Staff facilities	
4.171	Staff base	T0110
	Support spaces	
4.177	Store	W1531
4.179	Switchcupboard	K0101A

HBN 35G3 – Essential complimentary accommodation

4.174	Treatment/clean utility room	X0702
4.175	Dirty utility room	Y0407
4.178	Cleaners' room	Y1201

HBN 35H – Administration and general support facilities

	Reception	
4.142	Reception, 2 staff	J0206
4.144	Waiting, 10 persons	J1217
	General office spaces	
4.145	Office, 2 staff, safe, bank	M1026
4.146	Record store	W0806
4.147	Furniture store	W1561
	Staff spaces	
4.143	Office, 1 staff	M0219
4.152	Interview room	M0708
4.149	Staff rest room/pantry	D0215
4.148	Staff changing, 10 persons	V0516
4.148	Shower/WC/WHB	V0801
4.151	WC, wheelchair (type 5)	V0904
	Support spaces	
4.154	Cleaners' room	Y1201
4.155	Switchcupboard	K0101A

HBN 35H1 – Essential complimentary accommodation

4.153	Seminar room/library	H0510

HBN 35 H1 – Optional accommodation and services

	Reception	
4.144	Waiting, 6 persons	J1204
	General office spaces	
4.143	Office – consultant	M0304
4.143	Office – 2 staff	M1304
4.143	Office – 4 staff	M1014
4.143	Office – 6 staff	M1011
4.147	Furniture store	W1561
4.146	Record store	W0807
	Staff facilities	
4.148	Staff changing, 16 person	V0515

HBN 35I – Elderly day hospital

	Reception	
5.15	Reception/office, 2 staff, secretary	J0411
5.17	Office, 1 staff, sitting, (multi-disciplinary)	M0219A
5.21	Patients' cloakroom	V2208
5.15	Sub-waiting	J1204
	Sanitary facilities	
5.34	Bathroom assisted (type 2)	V1714
5.27	WC, disabled (type 3), semi-ambulant	V1109
5.27	WC, wheelchair (type 5)	V1217
	Patient day spaces	
5.24	Sitting room	D1124
5.28	Quiet room	D1126
5.29	Day spaces	D1125
5.33	ADL kitchen	Q0114
5.25	Dining room, 10 persons	D0605
5.25	Dining room, 20 persons	D0612
5.26	Pantry	P0616
5.26	Pantry	P0610
	Staff facilities	
5.16	Staff base	T0106
5.18	Doctors' office	M0304
5.19	Interview room	M0708
5.22	Staff cloakroom	V2204
5.23	WC, semi-ambulant (type 2)	V1101
	Support spaces	
5.20	Examination/treatment/utility	X0703
5.36	Dirty utility	Y0309
5.37	Disposal Hold	Y0603
5.38	Store – OT	W1508
5.39	General – store	W1506
5.39	Store – equipment	W1407
5.40	Cleaners' room	Y1201
5.41	Switchcupboard	K0101A

	Optional accommodation and services	
5.32	Beauty/hairdressing room	V2002
5.35	Clean utility	T0604

HBN 35J – Elderly acute ward, 20 beds

	Ward area	
5.46	Bedroom, Kings Fund	B0508
5.46	WC/WHB, wheelchair (type 5)	V1217
	Sanitary facilities	
5.50	Bathroom, domestic	V1715
5.49	Bathroom, assisted (type 2)	V1708
5.51	WC, wheelchair (type 5)	V1217
5.48	Shower/WC/WHB, wheelchair	V1315
	Patient day spaces	
5.62	Patient utility/laundry room	Y0503
5.52	Sitting room/TV lounge	D1123
5.52	Quiet room	D1126
5.52	Smoking lounge, TV	D1115
5.54	General room	D1125
5.55	Dining room	D0612
5.55	Ward pantry	P0610
	Ward administration	
5.62	Staff base	T0106
5.62	Ward office	M0207
5.62	Doctors' office	M0304
5.62	Interview room	M0708
	Support spaces	
5.62	Treatment/clean utility	X0703
5.62	Clean utility	T0604
5.58	Dirty utility	Y0407
5.62	Disposal hold	Y0603
5.59	Store – general	W1506
5.59	Store – equipment	W1410
5.59	Store – linen	W1421
5.62	Cleaner's room	Y1201
5.62	Switchcupboard	K0101A
	Essential complementary accommodation	
5.60	Staff rest room/beverages	D0201
5.61	Staff WC – type 1	V1007
	Optional accommodation and services	
5.56	Arts, crafts room	Q0411
5.57	Physiotherapy	Q0611

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